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Biotech-Chem Library

STIC Database Tracking Number: 171475

TO:	From:
Everett White Location: 5d24 / 5c18 Thursday, November 17, 2005 Art Unit: 1623 Phone: 571-272-0660 Serial Number: 10 / 810742	Jan Delaval Location: Biotech-Chem Library Remsen 1a51 Phone: 571-272-2504 jan.delaval@uspto.gov

Search Notes

121475

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( ) TC 2900 ( ) TC 3600 ( ) TC 3700 ( ) Law Lib ( ) Other

Your Contact Information:

* indicates mandatory information.

Your Name: Everett White
*Email Address: Everett.White@uspto.gov
(*e.g., Susan.Smith@uspto.gov*)
*Employee No.: 67057
*Art Unit/Org.: 1623
*Office Location: REM 5D24
*Phone No.: 571-272-0660
Mailbox No.:

***Case serial number:** 10/810,742
If not related to a patent application, please enter NA here.

Class / Subclass(es) 536/20 and 514/55

Earliest Priority Filing Date: 3/25/2004

Format preferred for results:

[x] Paper [ ] Diskette [ ] E-mail

Provide detailed information on your search topic:

- In your own words, describe in detail the concepts or subjects you want us to s
- Include synonyms, keywords, and acronyms. Define terms that have special m
- *For Chemical Structure Searches Only*
  Include the elected species or structures, keywords, synonyms, acronyms, and
- *For Sequence Searches Only*
  Include all pertinent information (parent, child, divisional, or issued patent numb
  serial number.
- *For Foreign Patent Family Searches Only*
  Include the country name and patent number.

- Provide examples or give us relevant citations, authors, etc., if known.
- FAX or send the **abstract, pertinent claims** (not all of the claims), **drawings,** c EIC or branch library.

Enter your Search Topic Information below:

Please carry out a structure-search of the N-acylated chitinous polymer having the formula set forth in instant Claims 1-11. A data base search of the cross linked n-acylated-N,O-carboxyalkylchitosan and a pharmaceutical composition thereof of Claims 42-50 is also requested. A data base search of a N-acylated-N,O-carboxyalkylchitosan being used to treat cancer, a nervous system disorder,a urinary tract disorder,a gastrointestinal tract disorder, a reproductive tract disorder and to prevent surgical adhesion in a subject as set forth in Claims 24-41

Special Instructions and Other Comments:
(For fastest service, let us know the best times to contact you, in case the searcher n search.)

is further requested. A copy of the claims is enclosed.

An inventor search (see Bib Data Sheet, enclosed) is also requested.
I can be reach from about 11:00am to 5:00pm daily.

SEND RESET

Submit comments and suggestions to Kristin Vajs

To report technical pr

If you cannot access a file because of a missing or non-working plugin, please contact the Help Desk at 2-9000 (Alexandria) or
305-9000 (Crystal City) for installation assistance.

```
=> d his

     (FILE 'HOME' ENTERED AT 13:42:09 ON 17 NOV 2005)
               SET COST OFF

     FILE 'REGISTRY' ENTERED AT 13:42:15 ON 17 NOV 2005
               E CHITIN/CN
L1           1 S E3
L2         315 S 1398-61-4/CRN
               E CHITIN
L3        3200 S E3
L4         924 S L3 NOT E4-E13,E16
L5         608 S L4 NOT L1,L2
L6          90 S L5 NOT SQL/FA
L7          89 S L6 NOT DNA
L8          11 S L2 AND N
L9           5 S L8 AND C2H4O3
L10          5 S L9 AND CARBOXYMETHYL ETHER
L11          1 S 52519-63-8
L12          8 S L1-L3 AND N AND O
L13          4 S L12 NOT SQL/FA

     FILE 'HCAPLUS' ENTERED AT 13:50:01 ON 17 NOV 2005
L14        375 S L11
L15       8628 S L1
L16         12 S L15 (L) N(L)O
               SEL AN 1 12
L17          2 S L16 AND E1-E4
               SEL RN

     FILE 'REGISTRY' ENTERED AT 13:54:51 ON 17 NOV 2005
L18         16 S E5-E20
L19          2 S L18 AND L1-L3
L20         14 S L18 NOT L19
L21          1 S L20 AND C10H17NO8

     FILE 'HCAPLUS' ENTERED AT 13:57:06 ON 17 NOV 2005
L22          6 S L21
               SEL AN 3-6
L23          4 S L22 AND E21-E28
L24          5 S L17,L23
L25          1 S US20050214255/PN OR (US2004-810742? OR WO2005-US10103)/AP,PRN
               E ELSON C/AU
L26        158 S E3-E8,E18,E19
               E KYDONIEUS A/AU
L27        149 S E3-E10
               E HENDERSON S/AU
L28         64 S E3,E10
               E HENDERSON SUE/AU
L29          6 S E5,E9,E10
               E CHITOGEN/PA,CS
L30         12 S E5-E12
L31          4 S L26-L29 AND CHITIN
L32          1 S L30 AND CHITIN
L33          4 S L31,L32
L34          2 S L33 NOT (48 OR 61)/SC,SX
L35          2 S L33 NOT L34
               SEL RN L34

     FILE 'REGISTRY' ENTERED AT 14:04:20 ON 17 NOV 2005
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```
L36          18 S E1-E18
L37           4 S 1404-00-8 OR 56124-62-0 OR 89-57-6 OR 23214-92-8
L38           2 S L36 AND (CHITIN OR L1-L3)
L39           4 S L36 AND CHITOSAN

     FILE 'HCAPLUS' ENTERED AT 14:06:45 ON 17 NOV 2005
L40       23166 S L38,L39
L41          10 S L26-L30 AND L40
L42           6 S L41 NOT L33
L43           5 S L42 NOT 44/SC
L44       28096 S L2,L3
L45           0 S L26-L30 AND L44 NOT L41,L33

     FILE 'REGISTRY' ENTERED AT 14:09:24 ON 17 NOV 2005
L46        1830 S CHITOSAN

     FILE 'HCAPLUS' ENTERED AT 14:09:32 ON 17 NOV 2005
L47       19914 S L46

     FILE 'REGISTRY' ENTERED AT 14:09:45 ON 17 NOV 2005
L48           1 S L39 AND 1/NC
L49         894 S 9012-76-4/CRN

     FILE 'HCAPLUS' ENTERED AT 14:09:55 ON 17 NOV 2005
L50        2267 S L49
L51          21 S L26-L30 AND L47,L50
L52          11 S L51 NOT L33,L41
L53          18 S L34,L43,L52
L54          18 S L53 AND L14-L17,L22-L35,L40-L45,L47,L50-L53
L55          17 S L54 AND N O
L56          18 S L54 AND ?CHITOSAN?
L57           3 S L54 AND ?CHITIN?
L58          18 S L54-L57
L59          17 S L58 AND ?CARBOXY?
L60          18 S L58,L59
                SEL RN 18

     FILE 'REGISTRY' ENTERED AT 14:14:16 ON 17 NOV 2005
L61          21 S E19-E39
L62           3 S 865532-59-8 OR 865533-35-3 OR 865533-54-6
L63           2 S L61 AND C5H9NO4
L64           1 S L63 AND CHITOSAN
L65           2 S L61 AND C6H8O7
L66           1 S L65 AND CHITOSAN
L67           1 S SUCCINIC ACID/CN
L68        6216 S 110-15-6/CRN
                E C4H4O3/MF
L69          43 S E3 AND OC4/ES
L70           6 S L69 AND 2 5 NOT (14C# OR 13C# OR 11C# OR (D OR T)/ELS)
L71           5 S L70 NOT DIOL
L72           1 S L71 NOT (LABELED OR 5 HYDROXY)
L73        1881 S 108-30-5/CRN
L74           3 S L2,L3 AND L68,L73
                E C4H2O3/MF
L75          16 S E3 AND OC4/ES
L76           3 S L75 AND 2 5 NOT (14C# OR 13C# OR 11C# OR (D OR T)/ELS OR LABE
L77           1 S 108-31-6
L78       24151 S 108-31-6/CRN
L79           0 S L2,L3 AND L78
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     FILE 'HCAPLUS' ENTERED AT 14:24:27 ON 17 NOV 2005
L80           2 S L62,L64,L66
L81          23 S L17,L24,L25,L34,L43,L60,L80
L82          23 S L81 AND L14-L17,L22-L35,L40-L45,L47,L50-L60,L80-L81
L83          18 S L82 AND N O
L84          23 S L82 AND (?CHITOSAN? OR ?CHITIN? OR ?CARBOXY? OR ?ACYL?)
L85           1 S L84 AND L37
L86           6 S L84 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? OR
L87          10 S L84 AND NOCC
L88          23 S L84-L87
L89           4 S L14 AND L37
L90          34 S L14 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? OR
L91          35 S L89,L90
L92           0 S L22 AND L37
L93           0 S L22 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? OR
L94          41 S L22,L91
L95          40 S L94 AND (PD<=20040325 OR PRD<=20040325 OR AD<=20040325)
L96          41 S L94,L95
                SEL AN 2 14 16 18 21 22 33 36 37
L97          32 S L96 NOT E1-E18

     FILE 'REGISTRY' ENTERED AT 14:40:04 ON 17 NOV 2005
L98           1 S DIVINYL SULFONE/CN

     FILE 'HCAPLUS' ENTERED AT 14:40:10 ON 17 NOV 2005
L99        1071 S L98  OR DIVINYLSULFONE OR DIVINYLSULPHONE OR DIVINYL()(SULFON
L100         21 S L99 AND L14,L15,L22,L40,L44,L47,L50
L101          0 S L100 AND L97
L102         33 S L25,L97
L103          1 S L102 AND L99,L100
L104         33 S L102,L103 AND L14-L17,L22-L35,L40-L45,L47,L50-L60,L80-L97,L99
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 14:42:36 ON 17 NOV 2005
L105         31 S E19-E49
L106         25 S L105 AND (CHITOSAN OR CHITIN OR L2 OR L49)
L107          9 S L106 AND N
L108          4 S L107 AND 1/NC
L109          9 S L107,L108
L110          8 S L109 NOT C16H36N
L111          6 S L105 NOT L106
L112          1 S L111 AND PMS/CI
L113          9 S L110,L112
L114          5 S L111 NOT L113

     FILE 'HCAPLUS' ENTERED AT 14:45:47 ON 17 NOV 2005
L115         33 S L113 AND L104

=> fil reg
FILE 'REGISTRY' ENTERED AT 14:46:12 ON 17 NOV 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   16 NOV 2005  HIGHEST RN 868209-27-2
DICTIONARY FILE UPDATES:  16 NOV 2005  HIGHEST RN 868209-27-2
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New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d l113 ide can tot

L113 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **865533-54-6** REGISTRY
ED Entered STN: 19 Oct 2005
CN **Chitosan, N-(carboxymethyl)-N-[(2Z)-3-carboxy-2(or 3)-methyl-1-oxo-2-propenyl], carboxymethyl ether (9CI)** (CA INDEX NAME)
MF C2 H4 O3 . x Unspecified
PCT Manual registration
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

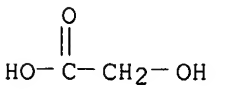
CM 1

CRN 865533-51-3
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:353333

L113 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **865533-35-3** REGISTRY
ED Entered STN: 19 Oct 2005
CN **Chitosan, N-(carboxymethyl)-N-(4-carboxy-1-oxobutyl), carboxymethyl ether (9CI)** (CA INDEX NAME)
MF C2 H4 O3 . x Unspecified
PCT Manual registration
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

CRN 865533-33-1
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:353333

L113 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **865532-59-8** REGISTRY
ED Entered STN: 19 Oct 2005
CN **Chitosan, N-(carboxymethyl)-N-(3-carboxy-1-oxopropyl), carboxymethyl ether (9CI)** (CA INDEX NAME)
MF C2 H4 O3 . x Unspecified
PCT Manual registration
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

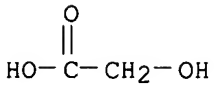
CM 1

CRN 865532-22-5
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:353333

L113 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **83512-85-0** REGISTRY
ED Entered STN: 16 Nov 1984
CN **Chitosan, N-(carboxymethyl) (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN **Carboxymethylchitosan**
CN **N-Carboxymethylchitosan**
MF **Unspecified**
CI PMS, COM, MAN
PCT Manual registration
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHEM, MEDLINE, PROMT, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

353 REFERENCES IN FILE CA (1907 TO DATE)
48 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
356 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:374068

REFERENCE 2: 143:372878

REFERENCE 3: 143:365768

REFERENCE 4: 143:362030

REFERENCE 5: 143:348976

REFERENCE 6: 143:348654

REFERENCE 7: 143:341015

REFERENCE 8: 143:339391

REFERENCE 9: 143:332632

REFERENCE 10: 143:321142

L113 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **78809-92-4** REGISTRY
ED Entered STN: 16 Nov 1984
CN **Chitosan, N-(3-carboxy-1-oxopropyl) (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN **Chitosan succinamate**
CN **Chitosan succinamide**

CN **Chitosan succinoyl amide**
CN **N-Succinylchitosan**
MF **Unspecified**
CI PMS, COM, MAN
PCT Manual registration
LC STN Files: BIOBUSINESS, BIOSIS, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
66 REFERENCES IN FILE CA (1907 TO DATE)
25 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
67 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:253612

REFERENCE 2: 143:103223

REFERENCE 3: 143:78377

REFERENCE 4: 142:294296

REFERENCE 5: 142:242623

REFERENCE 6: 141:415826

REFERENCE 7: 141:337254

REFERENCE 8: 141:59792

REFERENCE 9: 141:28269

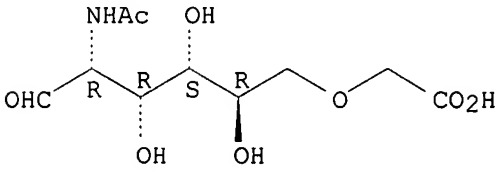
REFERENCE 10: 140:349983

L113 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **57216-53-2** REGISTRY
ED Entered STN: 16 Nov 1984
CN D-Glucose, 2-(acetylamino)-6-O-(carboxymethyl)-2-deoxy-, homopolymer (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Poly(N-acetyl-6-O-carboxymethyl-D-glucosamine)
FS STEREOSEARCH
MF (C10 H17 N O8)x
CI **PMS**
PCT Polyamide, Polyamide formed, Polyester, Polyester formed, Polyether
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL

CM 1

CRN 57216-52-1
CMF C10 H17 N O8

Absolute stereochemistry.



6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 112:223132

REFERENCE 2: 110:156586

REFERENCE 3: 94:180713

REFERENCE 4: 88:197685

REFERENCE 5: 88:126373

REFERENCE 6: 84:35314

L113 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **52519-63-8** REGISTRY
ED Entered STN: 16 Nov 1984
CN **Chitin, carboxymethyl ether (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN **Carboxymethylchitin**
CN **N-Acetyl-O-carboxymethylchitosan**
CN **O-Carboxymethylchitin**
DR 196412-80-3, 199943-94-7
MF C2 H4 O3 . x Unspecified
CI COM
PCT Manual registration, Polyother, Polyother only
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, TOXCENTER, USPAT2, USPATFULL

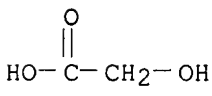
CM 1

CRN 1398-61-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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62 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
375 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:374068

REFERENCE 2: 143:292328

REFERENCE 3: 143:272267

REFERENCE 4: 143:254088

REFERENCE 5: 143:228311

REFERENCE 6: 143:138494

REFERENCE 7: 143:104071

REFERENCE 8: 143:103223

REFERENCE 9: 143:79650

REFERENCE 10: 143:61377

L113 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **9012-76-4** REGISTRY
ED Entered STN: 16 Nov 1984
CN **Chitosan (8CI, 9CI)** (CA INDEX NAME)
OTHER NAMES:
CN 100D-VL
CN Amidan
CN BC 10
CN BC 10 (polysaccharide)
CN Biopolymer L 112
CN C 60M
CN Chicol
CN Chirosan 100
CN **Chitan, N-acetyl-**
CN Chitech
CN **Chitin, N-deacetyl-**
CN Chitoclear
CN Chitoclear 400
CN Chitoclear TM 1111
CN Chitoclear TM 588
CN Chitofos
CN Chitolaze
CN Chitopearl 3510
CN Chitopearl AL 10
CN Chitopearl BC 3000
CN Chitopearl BCW 2500
CN Chitopearl BCW 3000
CN Chitopearl BCW 3500
CN Chitopearl BCW 3505
CN Chitopearl BCW 3507
CN Chitopearl K 20
CN **Chitosan 10B**
CN **Chitosan 500**
CN **Chitosan CLH**
CN **Chitosan EL**
CN **Chitosan F**
CN **Chitosan FL**
CN **Chitosan H**
CN **Chitosan LL**
CN **Chitosan LL 80**
CN **Chitosan LLWP**
CN **Chitosan M**
CN **Chitosan MP**

CN **Chitosan PSH**
CN **Chitosan VL**
CN **Chitosan WL-M**
CN Chitosol
CN Chitosom
CN Crystan LA-S
CN CTA 1 Lactic Acid
CN CTA 4
CN DAC 50
CN DAC 70
CN **Daichitosan 100DVL**
CN **Daichitosan DVL**
CN **Daichitosan L**
CN **Daichitosan P-VL**
CN **Daichitosan VL**
CN **Daichitosan VLA**
CN **Daichitosan W 10**
CN **Deacetylchitin**
CN **Flonac N**
CN **FM 200 (chitosan)**
CN **K 5 (chitosan)**
CN **Kimitsu Chitosan F**
CN **Kimitsu Chitosan F 2**
CN **Kimitsu Chitosan F 2P**
CN **Kimitsu Chitosan H**
CN **Kimitsu Chitosan L**
CN **Kimitsu Chitosan LL**
CN **Kimitsu Chitosan LLW**
CN **Kimitsu Chitosan LLWP**
CN **Kimitsu Chitosan M**
CN **Kimitsu Chitosan MP**
CN **Koyo Chitosan DAC 50**
CN **Koyo Chitosan FL 80**
CN **Koyo Chitosan FM 80**
CN **Koyo Chitosan SK 30**
CN **Koyo Chitosan SK 50**
CN **North Chitosan MA 1**
CN **North Chitosan MC 1**
CN **Seasanmer N 2000**
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 57285-05-9, 191045-06-4
MF **Unspecified**
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS, IMSRESEARCH, IPA, MEDLINE, NAPRALERT, PHAR, PIRA, PROMT, RTECS*, SCISEARCH, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: NDSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

17392 REFERENCES IN FILE CA (1907 TO DATE)

2917 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
17478 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:397460

REFERENCE 2: 143:397408

REFERENCE 3: 143:393149

REFERENCE 4: 143:393144

REFERENCE 5: 143:393128

REFERENCE 6: 143:393127

REFERENCE 7: 143:393048

REFERENCE 8: 143:393043

REFERENCE 9: 143:393004

REFERENCE 10: 143:392960

L113 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2005 ACS on STN
RN **1398-61-4** REGISTRY
ED Entered STN: 16 Nov 1984
CN **Chitin (8CI, 9CI)** (CA INDEX NAME)
OTHER NAMES:
CN **α-Chitin**
CN **β-Chitin**
CN **γ-Chitin**
CN **Chitan, N-acetyl-**
CN **Chitin Tc-L**
CN Clandosan
CN **Kimica Chitin F**
CN **Kimitsu Chitin**
CN **North Chitin CG 2**
CN Regitex FA
CN SEC 1
DR 9043-70-3, 191802-95-6
MF **Unspecified**
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8606 REFERENCES IN FILE CA (1907 TO DATE)
1050 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
8628 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:393172

REFERENCE 2: 143:392545

REFERENCE 3: 143:389263

REFERENCE 4: 143:388812

REFERENCE 5: 143:388811

REFERENCE 6: 143:385848

REFERENCE 7: 143:385360

REFERENCE 8: 143:383201

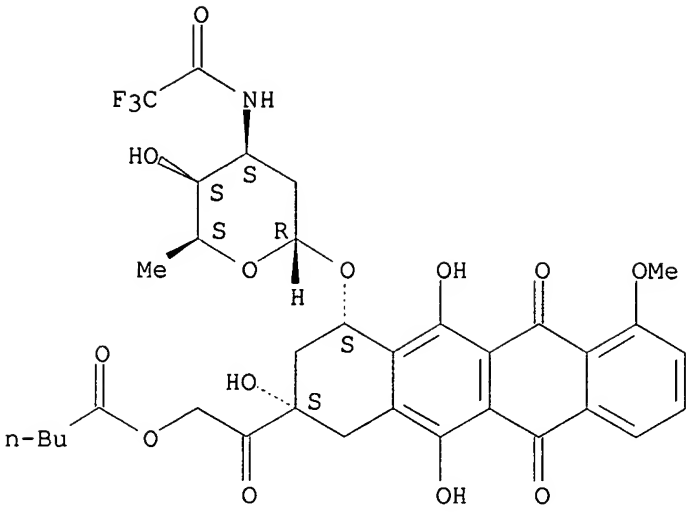
REFERENCE 9: 143:383033

REFERENCE 10: 143:382914

=> d l114 ide can tot

L114 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN
RN **56124-62-0** REGISTRY
ED Entered STN: 16 Nov 1984
CN Pentanoic acid, 2-[(2S,4S)-1,2,3,4,6,11-hexahydro-2,5,12-trihydroxy-7-methoxy-6,11-dioxo-4-[[2,3,6-trideoxy-3-[(trifluoroacetyl)amino]-α-L-lyxo-hexopyranosyl]oxy]-2-naphthacenyl]-2-oxoethyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Pentanoic acid, 2-[1,2,3,4,6,11-hexahydro-2,5,12-trihydroxy-7-methoxy-6,11-dioxo-4-[[2,3,6-trideoxy-3-[(trifluoroacetyl)amino]-α-L-lyxo-hexopyranosyl]oxy]-2-naphthacenyl]-2-oxoethyl ester, (2S-cis)-
OTHER NAMES:
CN AD 32
CN Antibiotic AD 32
CN N-Trifluoroacetyladriamycin 14-valerate
CN N-Trifluoroacetyldoxorubicin 14-valerate
CN NSC 246131
CN Trifluoroacetyladriamycin 14-valerate
CN Valrubicin
CN Valstar
FS STEREOSEARCH
DR 136816-53-0
MF C34 H36 F3 N O13
LC STN Files: ADISINSIGHT, ADISNEWS, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CIN, DDFU, DIOGENES, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, PHAR, PROMT, PROUSDDR, PS, RTECS*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

201 REFERENCES IN FILE CA (1907 TO DATE)
14 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
201 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:360087

REFERENCE 2: 143:353333

REFERENCE 3: 143:185899

REFERENCE 4: 143:166641

REFERENCE 5: 143:146730

REFERENCE 6: 143:120685

REFERENCE 7: 142:480782

REFERENCE 8: 142:457053

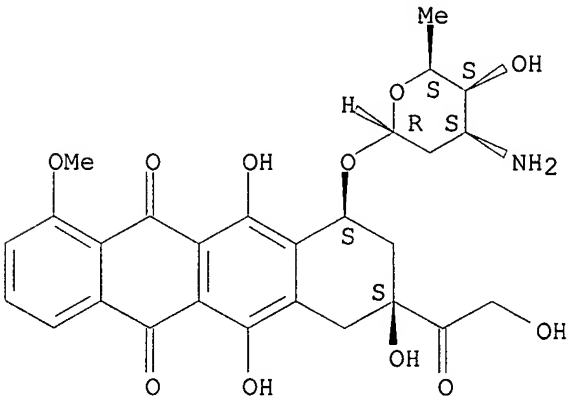
REFERENCE 9: 142:457052

REFERENCE 10: 142:441852

L114 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN
RN **23214-92-8** REGISTRY
ED Entered STN: 16 Nov 1984
CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, (8S,10S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5,12-Naphthacenedione, 10-[(3-amino-2,3,6-trideoxy-α-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-, (8S-cis)-
OTHER NAMES:
CN 14-Hydroxydaunomycin

CN Biotransdox
CN Caelyx
CN Doxil
CN Doxorubicin
CN Evacet
CN Hydroxydaunomycin
CN NSC 123127
CN PK 2
CN Rubex
FS STEREOSEARCH
DR 24385-08-8, 25311-50-6, 23257-17-2, 29042-30-6
MF C27 H29 N O11
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SCISEARCH, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15391 REFERENCES IN FILE CA (1907 TO DATE)
1039 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
15435 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:392785

REFERENCE 2: 143:392716

REFERENCE 3: 143:392670

REFERENCE 4: 143:387283

REFERENCE 5: 143:387282

REFERENCE 6: 143:384777

REFERENCE 7: 143:384770

REFERENCE 8: 143:383854

REFERENCE 9: 143:381737

REFERENCE 10: 143:380778

L114 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN
RN **1404-00-8** REGISTRY
ED Entered STN: 16 Nov 1984
CN Mitomycin (8CI, 9CI) (CA INDEX NAME)
MF Unspecified
CI COM, MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CBNB, CEN, CIN, CSNB, DIOGENES, EMBASE, IMSCOSEARCH, MEDLINE, MRCK*, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
917 REFERENCES IN FILE CA (1907 TO DATE)
128 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
922 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:373313

REFERENCE 2: 143:365654

REFERENCE 3: 143:353333

REFERENCE 4: 143:321809

REFERENCE 5: 143:312023

REFERENCE 6: 143:311993

REFERENCE 7: 143:292623

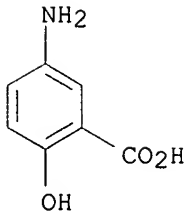
REFERENCE 8: 143:260361

REFERENCE 9: 143:260354

REFERENCE 10: 143:245758

L114 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN
RN **89-57-6** REGISTRY
ED Entered STN: 16 Nov 1984
CN Benzoic acid, 5-amino-2-hydroxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Salicylic acid, 5-amino- (8CI)
OTHER NAMES:
CN 2-Hydroxy-5-aminobenzoic acid
CN 3-Carboxy-4-hydroxyaniline
CN 5-Amino-2-hydroxybenzoic acid
CN 5-Aminosalicylic acid
CN 5-ASA
CN Asacol
CN Asacolitin
CN Asacolon

CN Canasa
CN Claversal
CN Fisalamine
CN Ipocol
CN Lixacol
CN m-Aminosalicylic acid
CN Mesacol
CN Mesalamine
CN Mesalazine
CN Mesasal
CN NSC 38877
CN Pentasa
CN Rowasa
CN Salofalk
CN Salozinal
FS 3D CONCORD
DR 61513-32-4
MF C7 H7 N O3
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, PHAR, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1852 REFERENCES IN FILE CA (1907 TO DATE)
97 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1856 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 143:393095

REFERENCE 2: 143:392993

REFERENCE 3: 143:373078

REFERENCE 4: 143:360097

REFERENCE 5: 143:360095

REFERENCE 6: 143:359795

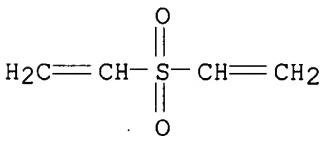
REFERENCE 7: 143:353333

REFERENCE 8: 143:338774

REFERENCE 9: 143:338769

REFERENCE 10: 143:304736

L114 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2005 ACS on STN
RN **77-77-0** REGISTRY
ED Entered STN: 16 Nov 1984
CN Ethene, 1,1'-sulfonylbis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Vinyl sulfone (6CI, 8CI)
OTHER NAMES:
CN Bis(ethenyl)sulfone
CN Divinyl sulfone
CN NSC 133793
CN NSC 18590
CN NSC 57304
FS 3D CONCORD
MF C4 H6 O2 S
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETHERM*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, NIOSHTIC, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

756 REFERENCES IN FILE CA (1907 TO DATE)
88 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
756 REFERENCES IN FILE CAPLUS (1907 TO DATE)
44 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 143:389851

REFERENCE 2: 143:388551

REFERENCE 3: 143:388155

REFERENCE 4: 143:367713

REFERENCE 5: 143:353333

REFERENCE 6: 143:347207

REFERENCE 7: 143:329274

REFERENCE 8: 143:326400

REFERENCE 9: 143:289413

REFERENCE 10: 143:286442

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FILE COVERS 1907 - 17 Nov 2005 VOL 143 ISS 21
FILE LAST UPDATED: 16 Nov 2005 (20051116/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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L115 ANSWER 1 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:1050467 HCAPLUS
DN 143:353333
TI N-**acylated chitinous** polymers and methods of use
thereof
IN **Elson, Clive; Kydonieus, Agis; Henderson, Susan**
Elizabeth
PA **Chitogenics, Inc., USA**
SO U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005214255	A1	20050929	US 2004-810742	20040325 <--
WO 2005094278	A2	20051013	WO 2005-US10103	20050325 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2004-810742 A 20040325 <--

AB The invention pertains to N-acetylated, **N, O-carboxyalkylchitosans** and methods for using the **chitosans** to treat disorders, such as cancer, nervous system disorders, urinary tract disorders, and reproductive tract disorders.

IT **89-57-6, 5-Aminosalicylic acid**
1404-00-8, Mitomycin **23214-92-8, Doxorubicin**
56124-62-0, Valrubicin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(N-**acylated chitinous** polymers and methods of use thereof)

IT **77-77-0, Divinyl sulfone**
RL: RCT (Reactant); RACT (Reactant or reagent)
(N-**acylated chitinous** polymers and methods of use thereof)

IT **1398-61-4DP, Chitin**, N-**acylated** analogs
9012-76-4DP, Chitosan, N-**acylated** derivs.
9012-76-4DP, Chitosan, N-**acylated-N, O-carboxyalkyl** derivs. **865532-59-8P**
865533-35-3P 865533-54-6P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(N-**acylated chitinous** polymers and methods of use thereof)

L115 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:564589 HCAPLUS
DN 143:103223
TI Polymeric micellar complexes and drug delivery vehicles thereof
IN Ignatious, Francis; Li, Yue Hu
PA Smithkline Beecham Corporation, USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005058376	A1	20050630	WO 2004-US42768	20041217 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2003-530142P P 20031217 <--
US 2003-532045P P 20031222 <--

AB Disclosed are complexes of an amphiphilic copolymer, wherein the amphiphilic copolymer has benzoyl sulfonic acid groups on the hydrophobic segment of the copolymer. Poly(lactide-block-methoxypolyethylene glycol)

was functionalized with sulfobenzoic anhydride.
IT **1398-61-4**, Chitin **9012-76-4**, Chitosan **52519-63-8**
, Carboxymethyl chitin **78809-92-4 83512-85-0**,
Carboxymethyl chitosan
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric micellar complexes and drug delivery vehicles)
IT **23214-92-8, Doxorubicin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymeric micellar complexes and drug delivery vehicles)
RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Gaur, H	1984	185	1795	Makromolekulare Chem	HCAPLUS

L115 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:914821 HCAPLUS
DN 142:162042
TI Method of preparing aqueous solution of chitin derivative and hyaluronic acid for cosmetic and medical purposes
IN Kim, Han Seok
PA S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI KR 2001088675	A	20010928	KR 2001-50131	20010820 <--
PRAI KR 2001-50131		20010820 <--		

AB A method of preparing a gel-like aqueous solution for cosmetic and medical purposes
by adding purified hyaluronic acid as a kind of mucopolysaccharide to carboxymethylchitin is provided. Whereby, the aqueous solution has excellent moisturizing action, tissue regenerating power and antibacterial activity and fine line wrinkles removing effect. The gelled aqueous solution is prepared by
mixing carboxymethyl chitin and 0.2 to 0.5% by weight of hyaluronic acid, optionally a thickening agent, vitamin, herb oil, **antibiotics** and other additives.
IT **52519-63-8**, Carboxymethylchitin
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(method of preparing aqueous solution of chitin derivative and hyaluronic acid for
cosmetic and medical purposes)

L115 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:794550 HCAPLUS
DN 141:282891
TI Hemostatic wound dressings and methods of making same
IN Looney, Dwayne Lee; Crilley, John; Guo, Jian Xin; Zhang, Guanghui; Pendharkar, Sanyog Manohar
PA Ethicon, Inc., USA
SO Eur. Pat. Appl., 50 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1462123	A1	20040929	EP 2003-254107	20030627 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004193088	A1	20040930	US 2003-396224	20030325 <--
	CA 2433976	AA	20040925	CA 2003-2433976	20030627 <--
	CN 1531910	A	20040929	CN 2003-127787	20030627 <--
	JP 2004290649	A2	20041021	JP 2003-185768	20030627 <--
	BR 2003004169	A	20050517	BR 2003-4169	20030630 <--
PRAI	US 2003-396224	A	20030325 <--		

AB The present invention is directed to methods of making wound dressings that include the steps of (i) providing a solution of a water-soluble or water-swellable biocompatible polymer dissolved in a solvent for the polymer, (ii) providing a fabric substrate having a first surface and a second surface opposing the first surface, the fabric having properties effective for use as a hemostat and containing fibers prepared from a biocompatible polymer, (iii) contacting the fabric substrate with the polymer solution under conditions effective to distribute the polymer solution substantially homogeneously on the first and second surfaces and through the fabric substrate, (iv) transferring the fabric substrate having the polymer solution substantially homogeneously distributed there through to a lyophilization unit under conditions effective to maintain the homogeneous distribution on and throughout the substrate, and (v) lyophilizing the fabric having the polymer solution distributed there through, thereby providing a porous, polymeric matrix substantially homogeneously distributed on the first and second surfaces and through the fabric, the matrix being made-up of the lyophilized water-soluble or water-swellable polymer. For example, 1 g of hydroxyethyl cellulose (HEC) was dissolved in 99 g of water, and 10 g of the HEC solution was transferred into a crystallization dish with a diameter of 10 cm. A piece of Surgicel Nu-Knit (absorbable hemostat, based on carboxylic-oxidized regenerated cellulose (CORC)), having a diameter of 9.8 cm (about 1.3 g) was placed on the HEC solution After soaking the fabric in the solution for 3 min, the wet fabric in the dish was then lyophilized overnight. A very flexible patch was formed. The patch achieved 100% hemostasis within 2 min in a porcine spleen incision model.

IT **1398-61-4**, Chitin **9012-76-4**, Chitosan **52519-63-8**, Carboxymethyl chitin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic dressings containing fabric substrate and porous, water-soluble or water-swellable biocompatible polymeric matrix)

L115 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:586812 HCAPLUS
DN 141:128434
TI Oxidative hair dye compositions containing **polypeptides**, chitin derivatives, or chitosan derivatives
IN Chikakura, Yoshito; Nozaki, Kiyotada; Kato, Miyuki; Kono, Kenji; Miyamoto, Kunihiro; Kitahara, Jiro; Nakata, Satoru
PA Nonogawa Shoji Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004203778	A2	20040722	JP 2002-374455	20021225 <--

PRAI JP 2002-374455 20021225 <--
AB Oxidative hair dyes contain **polypeptides** (average mol. weight 200-30,000), chitin derivs., or chitosan derivs. as dyeing aids. The dyeability and color fastness to shampooing of 2-component oxidative hair dye compns. were significantly improved by addition of 0.1 weight% keratin hydrolyzate (average mol. weight 20,000) to the 1st component containing p-aminophenol, ammonium thioglycolate, etc.
IT **39280-86-9**, Hydroxyethyl chitosan **52519-63-8**, Carboxymethyl chitin **724422-43-9**, Hydroxymethyl chitosan
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dye compns. containing **polypeptides**, chitin derivs., or chitosan derivs. as dyeing aids)

L115 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:510784 HCAPLUS
DN 141:59786
TI Hemostatic wound dressing made of a polysaccharide fabric and a polymer matrix
IN Zhang, Guanghui; Pendharkar, Sanyog Manohar; Guo, Jian Xin; Looney, Dwayne Lee; Gorman, Anne Jessica
PA USA
SO U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004120993	A1	20040624	US 2002-326244	20021220 <--
	CA 2433977	AA	20040620	CA 2003-2433977	20030627 <--
	EP 1430911	A2	20040623	EP 2003-254119	20030627 <--
	EP 1430911	A3	20041124		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1509768	A	20040707	CN 2003-152694	20030627 <--
	JP 2004202202	A2	20040722	JP 2003-185945	20030627 <--
	BR 2003004600	A	20040831	BR 2003-4600	20030627 <--
	US 2004106344	A1	20040603	US 2003-721836	20031125 <--
PRAI	US 2002-186021	A2	20020628 <--		
	US 2002-304472	A2	20021126 <--		
	US 2002-304781	A2	20021126 <--		
	US 2002-305040	A2	20021126 <--		
	US 2002-326244	A	20021220 <--		
	US 2003-396226	A2	20030325 <--		

AB The present invention is directed to hemostatic wound dressings containing a fabric made from biocompatible, aldehyde-modified polysaccharide fibers; and a porous, polymeric matrix made from a biocompatible, water-soluble or water-swellable polymer, dispersed at least partially through the fabric. The wound dressing further comprises a hemostatic agent, e.g., prothrombin, thrombin, fibrinogen, fibrin, fibronectin, heparinase, blood coagulation factors, tissue factor, batroxobin, ancrod, ecarin, etc. Methods of making such wound dressings and methods of providing hemostasis to a wound using the dressing are also described. For example, an aldehyde-modified regenerated cellulose fabric was soaked with a solution containing hydroxyethyl cellulose and thrombin and lyophilized to give a flexible patch. The patch achieved effective hemostasis in 73 s in a porcine splenic incision model with tamponade for 30 s.
IT **1398-61-4D**, Chitin, oxidized **9012-76-4D**, Chitosan, oxidized **52519-63-8D**, Carboxymethyl chitin, oxidized **83512-85-0D**, Carboxymethylchitosan, oxidized

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(wound dressing containing aldehyde-modified polysaccharide fabric, polymer matrix and hemostatic)

L115 ANSWER 7 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:510350 HCAPLUS
DN 141:59783
TI Bone repair materials and osteogenic cell culture base materials comprising **peptide**-grafted bioabsorbable polymers
IN Muramatsu, Kazuaki
PA Kyocera Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004173995	A2	20040624	JP 2002-344739	20021127 <--
PRAI JP 2002-344739		20021127 <--		

AB The bone repair materials and osteogenic cell culture base materials comprise bioabsorbable polymers having graft chains of **peptides** containing acidic amino acid-rich regions of bone marker proteins as motifs. An aqueous solution containing pepsin-treated type I collagen was freeze-dried, and the resulting spongy sheet was irradiated with Ar plasma, immersed in an aqueous solution containing an osteocalcin **peptide** E-P-R-R-E-V-C-E-L-N-P-D-C-D-E, and freeze-dried to give a culture base material. Subcultured fibroblasts were cultured on the base materials in αMEM supplemented with 15% FBS, dexamethasone, ascorbic acid, and β-glycerophosphoric acid for 1 wk to give a material showing increased alkaline phosphatase activity, which was completely absorbed after 4-wk implantation into rabbit bone and enhanced the mineralization of bone.
IT **52519-63-8DP**, Carboxymethyl chitin, graft polymers with osteonectin **peptide**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(bone repair materials and osteogenic cell culture base materials comprising bioabsorbable polymers grafted with **peptides** containing bone marker protein motifs)

L115 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:412562 HCAPLUS
DN 140:412378
TI Anti-adhesion compositions of polyacids and polyethers for reducing post-surgical pain
IN Schwartz, Herbert E.; Blackmore, John M.; Cortese, Stephanie M.; Oppelt, William G.; DiZigera, Gere
PA USA
SO U.S. Pat. Appl. Publ., 86 pp., Cont.-in-part of U.S. Ser. No. 472,110.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004096422	A1	20040520	US 2003-666804	20030919 <--
US 5906997	A	19990525	US 1997-877649	19970617 <--
US 6034140	A	20000307	US 1998-23097	19980213 <--

US 6869938 B1 20050322 US 1999-472110 19991227 <--
WO 2005027852 A2 20050331 WO 2004-US30839 20040920 <--
WO 2005027852 A3 20051027
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 1997-877649 A3 19970617 <--
US 1998-23097 A2 19980213 <--
US 1999-127571P P 19990402 <--
US 1999-472110 A2 19991227 <--
US 2003-666804 A 20030919 <--
AB The present invention relates to improved methods for reducing pain and organ dysfunction using bioadhesive, bioresorbable, anti-adhesion compns. made of intermacromol. complexes of carboxyl-containing polysaccharides, polyethers, polyacids, polyalkylene oxides, multivalent cations and/or polycations. The polymers are associated with each other, and are then either dried into membranes or sponges, or are used as gels, fluids or microspheres. Compns. are useful in surgery to prevent the formation and reformation of post-surgical adhesions. The compns. are designed to breakdown in-vivo, and thus be removed from the body. Membranes are inserted during surgery either dry or optionally after conditioning in aqueous solns. Anti-adhesion, bioadhesive, bioresorptive, antithrombogenic and phys. properties of such membranes and gels can be varied as needed by carefully adjusting the pH and/or cation content of the polymer casting solns., polyacid composition, the polyalkylene oxide composition, or by conditioning the membranes prior to surgical use. Membranes and gels can be used concurrently. Anti-adhesion compns. may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally. For example, an ionically crosslinked gel having 2% weight/volume solids ratio and 95% CM-cellulose/5% polyethylene oxide was prepared A dry, powdered mixture containing 9.5 g CMC and 0.5 g PEO was added to 500 mL water containing 3.2 mL of a 25.2% weight/volume solution of FeCl2.6H2O and the solution was stirred at high speed until homogeneous. The osmolality was then adjusted to a physiol. acceptable value of about 300 mmol/kg by adding about 13 mL of a 30% weight/volume solution of NaCl and further mixing the gel. The pH of the gel was adjusted to 7.0 by adding 1.7 N NH4OH. The gel was sterilized in an autoclave for 15 min at 250°. Freeze drying of the gel provided iron-associated sponges.
IT **1398-61-4**, Chitin **52519-63-8**, Carboxymethyl chitin **83512-85-0**, Carboxymethylchitosan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-adhesion compns. of polyacids and polyethers for reducing post-surgical pain)

L115 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:3477 HCAPLUS
DN 140:65281
TI Hemostatic wound dressing comprising biocompatible polymeric fibers

IN Guo, Jian Xin; Looney, Dwayne Lee; Zhang, Guanghui; Gorman, Anne Jessica
PA USA
SO U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004001879	A1	20040101	US 2002-186021	20020628 <--
	US 2004005350	A1	20040108	US 2003-396226	20030325 <--
	CA 2433968	AA	20031228	CA 2003-2433968	20030627 <--
	EP 1378255	A2	20040107	EP 2003-254114	20030627 <--
	EP 1378255	A3	20040128		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1533751	A	20041006	CN 2003-127481	20030627 <--
	JP 2004160182	A2	20040610	JP 2003-187344	20030630 <--
	US 2004106344	A1	20040603	US 2003-721836	20031125 <--
PRAI	US 2002-186021	A2	20020628 <--		
	US 2002-304472	A2	20021126 <--		
	US 2002-304781	A2	20021126 <--		
	US 2002-305040	A2	20021126 <--		
	US 2002-326244	A2	20021220 <--		
	US 2003-396226	A2	20030325 <--		

AB The present invention is directed to wound dressings that contain a fabric made from biocompatible polymeric fibers and having flexibility, strength and porosity effective for use as a hemostat, and a porous, polymeric matrix prepared from a biocompatible, water-soluble or water-swellable polymer dispersed through the fabric; and to methods of making such wound dressings. For example, 1 g of hydroxyethyl cellulose (HEC) was dissolved in 99 g of water, and 10 g of the HEC solution was transferred into a crystallization dish. A piece of Surgicel Nu-Knit absorbable hemostat, based on oxidized regenerated cellulose (ORC), having a diameter of 9.8 cm (about 1.3 g) was placed on the HEC solution in the crystallization dish. After soaking the fabric in the solution for 3 min, the wet fabric was lyophilized to give a very flexible patch.
IT **1398-61-4**, Chitin **9012-76-4**, Chitosan **52519-63-8**
, Carboxymethyl chitin **83512-85-0**, Carboxymethyl chitosan
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic wound dressing comprising fabric made of biocompatible polymeric fibers and polymeric matrix)

L115 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:790594 HCAPLUS
DN 140:292561
TI Development of degradable double-phase material promoting the regeneration of osteochondral defects in the knee joint
AU Yoshihara, Yusuke; Mukai, Ken
CS Biochemical Research Section, Bioceram Division, Kyocera Corporation, Japan
SO Baiomateriaru (**2003**), 21(4), 305-310
CODEN: BAIOBS; ISSN: 1347-7080
PB Nippon Baiomateriaru Gakkai
DT Journal
LA Japanese
AB In the previous animal expts., the authors confirmed that

Carboxymethyl-chitin (CM-chitin) disappeared in rabbit tibial bone tissue with moderate **inflammation**, and did not obstruct the natural healing of bone defects. In this study, the authors manufactured CM-chitin by trial production for application to osteochondral defects and examined the ability in critical sized osteochondral defects of rabbits. Double phase materials (4.0 + 4.0 mm cylindrical construction), which are composed of CM-chitin and β-tricalcium phosphate (β-TCP) granules. were implanted into 5.0 + 5.0 mm osteochondral defects in the femoropatellar groove of young adult (4-mo) NZW rabbits. Defects filled with only β-TCP granules and defects without material were made as controls. Then, portions of the distal femur were harvested 2, 4 and 8 wk after implantation, decalcified and embedded in paraffin, and serial sections were cut at the center of the osteochondral defects. Sections were stained with toluidine blue solution, and microscopic examination was carried out. Two weeks later, in the case of double phase material implantation, the porous structure of CM-chitin had already disappeared, and the β-TCP granules were uniformly placed in newly formed tissue. The β-TCP granules gradually disappeared and active endochondral ossification was observed in the center of the defects. After eight weeks, ossification advanced further in the subchondral bone area and cartilaginous tissue remained on the upper side of the defect. On the other-hand, in the case of β-TCP granule implantation. ossification advanced in the subchondral bone area, but ultimately cartilaginous tissue unformed on the upper side of the defect. The result of this animal study indicates that the double phase material, which contains β-TCP granules in CM-chitin porous matrix, promotes new subchondral bone formation at early stage, and ultimately leads to the regeneration of cartilage-like tissue in the upper area of the osteochondral defect.

IT **52519-63-8**, Carboxymethyl-chitin
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carboxymethyl-chitin-β-tricalcium phosphate double-phase material promoting the regeneration of osteochondral defects in knee joint)

L115 ANSWER 11 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:218703 HCAPLUS
DN 139:296834
TI Tissue response to a newly developed calcium phosphate cement containing succinic acid and carboxymethyl-chitin
AU Yokoyama, Atsuro; Matsuno, Hironobu; Yamamoto, Satoru; Kawasaki, Takao; Kohgo, Takao; Uo, Motohiro; Watari, Fumio; Nakasu, Masanori
CS Department of Oral Functional Science, Hokkaido University Graduate School of Dental Medicine, Sapporo, 060-8586, Japan
SO Journal of Biomedical Materials Research, Part A (**2003**), 64A(3), 491-501
CODEN: JBMRCH
PB John Wiley & Sons, Inc.
DT Journal
LA English
AB We developed a new calcium phosphate cement containing succinic acid and carboxymethyl-chitin in the liquid component. In this study, the biocompatibility and osteocond. of this new cement were investigated. After mixing, cement in putty form was implanted immediately between the periosteum and parietal bone and in the s.c. tissues of rats. In control cement, distilled water was used instead of the liquid component. In addition to histol. evaluations, analyses with x-ray diffraction and Fourier transform IR were performed for the s.c. implanted cements. Histol. examination showed slight **inflammation** around the new cement on the bone and in the s.c. tissue at 1 wk after surgery. At 2 wk, the cement was partially

bound to the parietal bone. The extent of the surface of the new cement directly in contact with the bone increased with time, and most of the undersurface of the new cement bound to the host parietal bone by 8 wk. Anal. by x-ray diffraction showed that the new cement in the s.c. tissue was transformed into hydroxyapatite by 8 wk. These results indicate that this new calcium phosphate cement is useful as a bone substitute material.

IT **52519-63-8**, Carboxymethyl-chitin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tissue response to a newly developed calcium phosphate cement containing succinic acid and carboxymethyl-chitin)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bermudez, O	1994	5	160	J Mater Sci Mater Me	HCAPLUS
Brown, W	1986			US 4612053	HCAPLUS
Constantz, B	1995	267	1796	Science	HCAPLUS
Donath, K	1987	13	120	J Oral Implantol	MEDLINE
Frankenburg, E	1998	80-A	1112	J Bone and Joint Sur	
Friedman, C	1998	43	428	J Biomed Mater Res (	HCAPLUS
Fukase, Y	1990	69	1852	J Dent Res	HCAPLUS
Goodman, S	1990	24	517	J Biomed Mater Res	HCAPLUS
Hong, Y	1991	25	485	J Biomed Mater Res	HCAPLUS
Hupp, J	1988	46	538	J Oral Maxillofac Su	MEDLINE
Ikenaga, M	1998	40	139	J Biomed Mater Res	HCAPLUS
Ishikawa, K	1995	16	527	Biomaterials	HCAPLUS
Ishikawa, K	1995	6	528	J Mater Sci Mater Me	HCAPLUS
Jarcho, M	1981	157	259	Clin Orthop	HCAPLUS
Kent, J	1986	44	37	J Oral Maxilofac Sur	MEDLINE
Kurashina, K	1998	19	701	Biomaterials	HCAPLUS
Kurashina, K	1995	6	340	J Mater Sci Mater Me	HCAPLUS
Miyamoto, Y	1997	37	457	J Biomed Mater Res	HCAPLUS
Miyamoto, Y	1999	48	36	J Biomed Mater Res (	HCAPLUS
Monma, H	1976	84	209	J Ceram Soc Jpn	HCAPLUS
Monma, H	1997	15	24	J Jp Soc Biomaterial	HCAPLUS
Nakasu, M				Biomaterials; submit	
Sarkar, M	2001	58	329	J Biomed Mater Res (	HCAPLUS
Sjogren, U	1995	103	313	Eur J Oral Sci	MEDLINE
Takechi, M	1998	19	2057	Biomaterials	HCAPLUS
Wan, A	1996	17	1529	Biomaterials	HCAPLUS
Watanabe, K	1990	38	506	Chem Pharm Bull (Tok	HCAPLUS
Wittkampf, A	1988	46	1019	J Oral Maxillofac Su	MEDLINE
Yokoyama, A	1994	73	914	J Dent Res	
Yokoyama, A	1999	78	410	J Dent Res	
Yokoyama, A	2000	44	9	J Jpn Prosthodont So	
Yuan, H	2000	21	1283	Biomaterials	HCAPLUS

L115 ANSWER 12 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:107093 HCAPLUS
DN 136:156446
TI Mucoadhesive pharmaceutical composition comprising photochemotherapeutic agent
IN Klaveness, Jo; Hansson, Vidar; Godal, Aslak
PA Photocure ASA, Norway; Golding, Louise
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002009690	A2	20020207	WO 2001-GB3338	20010725 <--
	WO 2002009690	A3	20020808		
	WO 2002009690	C1	20040415		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2417533	AA	20020207	CA 2001-2417533	20010725 <--
	EP 1311259	A2	20030521	EP 2001-984399	20010725 <--
	EP 1311259	B1	20050615		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004505040	T2	20040219	JP 2002-515243	20010725 <--
	AT 297723	E	20050715	AT 2001-984399	20010725 <--
	US 2004029855	A1	20040212	US 2003-343211	20030805 <--
PRAI	GB 2000-18527	A	20000727 <--		
	WO 2001-GB3338	W	20010725 <--		

OS MARPAT 136:156446

AB The present invention relates to a pharmaceutical composition for use as a medicament, preferably for the treatment or diagnosis of disorders or abnormalities of epithelial-lined surfaces, preferably mucosa-lined surfaces, comprising a photochemotherapeutic agent together with a mucoadhesive agent, optionally together with at least one surface penetration assisting agent and optionally with one or more chelating agents, and products and kits for performing the invention. A mucoadhesive composition contained hexyl 5-aminolevulinic acid hydrochloride 1.5, liquid paraffin 2.0, and Orabase paste q.s. 100 g. The formulation showed improved mucoadhesive properties over the controls when applied to the mouth, tongue, and between the teeth of a man.

IT **9012-76-4**, Chitosan **52519-63-8**, Carboxymethyl chitin **66267-50-3**, Chitosan lactate **84563-76-8**, Chitosan glutamate
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mucoadhesive pharmaceutical composition comprising photochemotherapeutic agent)

L115 ANSWER 13 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:6790 HCAPLUS
DN 136:42523
TI Make-up material composition containing chitinous substance derivatives
IN Kwon, Sun Sang; Jang, Eui Seop; Song, Dong Hyuk; Yeom, Myung Hun; Moon, Chang Bae; Ahn, Soo Sun; Kim, Jin Han
PA Pacific Co., Ltd., S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2000002616	A	20000115	KR 1998-23460	19980622 <--
PRAI	KR 1998-23460		19980622 <--		

AB A skin preparation which is excellent in curing wounds and provides

anti-inflammatory and moisturizing effects, comprises carboxymethyl chitin. The carboxymethyl chitin is obtained by carboxymethylation of chitin originated from cuttlefish bone.

IT **52519-63-8P**, Carboxymethyl chitin
RL: COS (Cosmetic use); PAC (Pharmacological activity); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(skin prepns. containing chitin ethers)

L115 ANSWER 14 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:725477 HCAPLUS
DN 133:286502
TI Compositions of polyacids and polyethers and methods for their use in reducing adhesions
IN Schwartz, Herbert E.; Blackmore, John M.; Cortese, Stephanie M.; Oppelt, William G.
PA Fziomed, Inc., USA
SO PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000059516	A1	20001012	WO 2000-US7963	20000323 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6869938	B1	20050322	US 1999-472110	19991227 <--
	CA 2366880	AA	20001012	CA 2000-2366880	20000323 <--
	EP 1181023	A1	20020227	EP 2000-921450	20000323 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2003530136	T2	20031014	JP 2000-609079	20000323 <--
	AU 778853	B2	20041223	AU 2000-41770	20000323 <--
PRAI	US 1999-127571P	P	19990402 <--		
	US 1999-472110	A	19991227 <--		
	US 1997-877649	A3	19970617 <--		
	US 1998-23097	A2	19980213 <--		
	WO 2000-US7963	W	20000323 <--		

AB The present invention relates to improved methods for making and using bioadhesive, bioresorbable, anti-adhesion compns. made of intermacromol. complexes of carboxyl-containing polysaccharides, polyethers, polyacids, polyalkylene oxides, multivalent cations and/or polycations. The polymers are associated with each other, and are then either dried into membranes or sponges, or are used as fluids or microspheres. Bioresorbable, bioadhesive, anti-adhesion compns. are useful in surgery to prevent the formation and reformation of post-surgical adhesions. The compns. are designed to breakdown in-vivo , and thus be removed from the body. Membranes are inserted during surgery either dry or optionally after conditioning in aqueous solns. The anti-adhesion, bioadhesive, bioresorptive, antithrombogenic and phys. properties of such membranes and gels can be varied as needed by carefully adjusting the pH and/or cation content of the polymer casting solns., polyacid composition, the polyalkylene oxide composition, or by conditioning the membranes prior to surgical use. Multi-layered membranes can be made and used to provide further control

over the phys. and biol. properties of antiadhesion membranes. Membranes and gels can be used concurrently. Antiadhesion compns. may also be used to lubricate tissues and/or medical instruments, and/or deliver drugs to the surgical site and release them locally. An examples was given for preparation of a neutral CM-cellulose-PEG membrane.

IT **1398-61-4**, Chitin **52519-63-8**, Carboxymethyl chitin **83512-85-0**, Carboxymethyl chitosan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. of polyacids and polyethers and methods for their use in reducing adhesions)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Chaudhuri	1991			US 5066709 A	HCAPLUS
Jacob	1999			US 5985312 A	HCAPLUS
Johnson And Johnson Con	1993			EP 0581581 A2	HCAPLUS
Prestwich	1999			US 5874417 A	HCAPLUS
Rencher	1995			US 5462749 A	HCAPLUS
Robinson	1999			US 5968500 A	HCAPLUS
Santos	1999			US 5955096 A	HCAPLUS
Schwartz	1999			US 5906997 A	HCAPLUS
Schwartz	2000			US 6017301 A	HCAPLUS
Tapolsky	1998			US 5800832 A	HCAPLUS

L115 ANSWER 15 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:751590 HCAPLUS
DN 128:46478
TI Cell adhesion molecules and cancer metastasis
AU Saiki, Ikuo
CS Research Institute for Wakan-yaku, Toyama Medical and Pharmaceutical University, Toyama, 930-01, Japan
SO Japanese Journal of Pharmacology (**1997**), 75(3), 215-242
CODEN: JJPAAZ; ISSN: 0021-5198
PB Japanese Pharmacological Society
DT Journal; General Review
LA English
AB A review with 138 refs. The adhesive interaction between tumor cells and host cells or the extracellular matrix plays a crucial role in metastasis formation. Therefore, understanding the mechanism controlling metastasis may assist in the development of anti-metastatic therapy. The authors have used synthetic or recombinant **polypeptide** analogs containing the Arg-Gly-Asp (RGD) sequence found in the functional domains of fibronectin, such as poly(RGD) or CH-271, to regulate the mechanisms involved in cell adhesion during the metastatic process. Poly(RGD) inhibited exptl. lung and liver metastasis effectively when coinjected i.v. with various types of tumors. In a model of spontaneous lung metastasis using the B16-BL6 melanoma, repeated administration of this **polypeptide** before or after surgical excision of the primary tumor resulted in a significant inhibition of tumor metastasis without affecting the growth of the primary tumor and substantially prolonged the survival time of mice. The mechanism responsible for the inhibition of tumor metastasis by the **polypeptides** is at least partly associated with the ability to interfere with cellular functions such as adhesiveness, motility and invasiveness in the process of metastasis. Combined treatment of the CH-271 fusion **polypeptide** and anticancer drugs, i.e., anti-adhesion therapy combined with chemotherapy, caused a marked inhibition of lung and liver metastasis of tumors as compared with either treatment alone or with the control. In contrast, the promotion of tumor cell interaction with immune cells via cell adhesion mols., which differs

from the anti-adhesive mechanism, may lead to the induction of anti-tumor immune responses and, consequently, to the inhibition of tumor metastasis. The transfection of the gene of the B7-1 adhesion mol. into tumor cells (B16-BL6 or K1735-M2 melanoma) resulted in the remarkable reduction of lung metastasis caused by the i.v. injection into mice. Immunization of B7-transfected tumor was effective as a tumor vaccine for preventing the metastasis of B7 neg. original tumor cells. Thus, the regulation of the adhesive interaction with tumor cells may provide a new and promising approach for the control and prevention of cancer metastasis.

IT **52519-63-8D**, Carboxymethyl chitin, sulfated
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(cancer metastasis inhibition by)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Albelda, S	1990	4	2868	FASEB J	HCAPLUS
Andersson, A	1991	47	124	Int J Cancer	HCAPLUS
Barsky, S	1984	74	843	J Clin Invest	HCAPLUS
Baskar, S	1995	181	619	J Exp Med	HCAPLUS
Bevilacqua, M	1987	84	9238	Proc Natl Acad Sci U	HCAPLUS
Birch, M	1991	51	6660	Cancer Res	HCAPLUS
Butcher, E	1991	67	1033	Cell	MEDLINE
Chan, B	1991	251	1600	Science	HCAPLUS
Charo, I	1986	83	8351	Proc Natl Acad Sci U	HCAPLUS
Chen, L	1992	71	1093	Cell	HCAPLUS
Chen, L	1994	179	523	J Exp Med	HCAPLUS
Cheresh, D	1987	105	1163	J Cell Biol	HCAPLUS
Chew, E	1976	36	1904	Cancer Res	HCAPLUS
Declerck, Y	1992	52	701	Cancer Res	HCAPLUS
Dedhar, S	1987	105	1175	J Cell Biol	HCAPLUS
Dedhar, S	1990	110	481	J Cell Biol	HCAPLUS
El-Sabban, M	1991	115	1375	J Cell Biol	MEDLINE
Faassen, A	1992	116	521	J Cell Biol	HCAPLUS
Fidler, I	1984		5	Cancer Invasion and	
Fidler, I	1973	9	223	Eur J Cancer	MEDLINE
Folkman, J	1985	43	175	Adv Cancer Res	MEDLINE
Folkman, J	1971	18	1182	N Engl J Med	
Folkman, J	1987	235	442	Science	HCAPLUS
Frixen, U	1991	113	173	J Cell Biol	HCAPLUS
Fujii, H	1995	18	1681	Biol Pharm Bull	HCAPLUS
Fujii, H	1997	15		Clin Exp Metastasis,	
Fujii, H	1997	16		Clin Exp Metastasis,	
Fujii, H	1996	66	219	Int J Cancer	MEDLINE
Fujii, H	1996	9	333	Oncol Res	
Gasic, G	1973	11	704	Int J Cancer	MEDLINE
Gianoctti, F	1990	60	849	Cell	
Graf, J	1987	48	989	Cell	HCAPLUS
Gunthert, U	1991	65	13	Cell	MEDLINE
Habu, S	1981	127	34	J Immunol	MEDLINE
Hart, I	1982	1	5	Cancer Metastasis Re	MEDLINE
Hession, C	1990	87	1673	Proc Natl Acad Sci U	HCAPLUS
Hofmann, M	1991	51	5292	Cancer Res	HCAPLUS
Huber, A	1991	254	99	Science	HCAPLUS
Humphries, M	1987	262	6886	J Biol Chem	HCAPLUS
Humphries, M	1988	81	782	J Clin Invest	HCAPLUS
Humphries, M	1986	233	467	Science	HCAPLUS
Hynes, R	1987	48	549	Cell	HCAPLUS
Irimura, T	1986	25	5322	Biochemistry	HCAPLUS

Iwamoto, Y	1987	238	1132	Science	HCAPLUS
Johnson, J	1989	86	641	Proc Natl Acad Sci U	HCAPLUS
Karpathlan, S	1984		139	Hemostasis Mechanism	
Kojima, N	1991	266	17552	J Biol Chem	HCAPLUS
Komazawa, H	1993	16	997	Biol Pharm Bull	HCAPLUS
Komazawa, H	1993	21	299	Carbohydrate Polymer	HCAPLUS
Komazawa, H	1993	11	482	Clin Exp Metastasis	HCAPLUS
Komazawa, H	1993	8	258	J Bioactive Compatib	HCAPLUS
Komazawa, H	1995	7	341	Oncol Res	HCAPLUS
Kornblihtt, A	1985	4	1755	EMBO J	HCAPLUS
Kumagai, H	1991	177	74	Biochem Biophys Res	HCAPLUS
Liotta, L	1976	36	889	Cancer Res	MEDLINE
Liotta, L	1983	49	636	Lab Invest	HCAPLUS
Liotta, L	1980	284	67	Nature	HCAPLUS
Makabe, T	1990	265	14270	J Biol Chem	HCAPLUS
Mareel, M	1991	47	922	Int J Cancer	MEDLINE
Matsumoto, Y	1991	82	1130	Jpn J Cancer Res	HCAPLUS
McCarthy, J	1984	98	1474	J Cell Biol	HCAPLUS
McCarthy, J	1986	102	179	J Cell Biol	HCAPLUS
McCarthy, J	1988	80	108	J Natl Cancer Inst	HCAPLUS
Melchiori, A	1992	52	2353	Cancer Res	HCAPLUS
Menter, D	1987	79	1077	J Natl Cancer Inst	HCAPLUS
Mentzer, S	1985	135	9	J Immunol	HCAPLUS
Meromsky, L	1986	46	5270	Cancer Res	HCAPLUS
Miyake, M	1991	30	3328	Biochem	HCAPLUS
Mortarini, R	1991	47	551	Int J Cancer	HCAPLUS
Mould, A	1991	266	3579	J Biol Chem	HCAPLUS
Mueller, D	1989	7	445	Annu Rev Immunol	MEDLINE
Murata, J	1991	51	22	Cancer Res	HCAPLUS
Murata, J	1989	11	226	Int J Biol Macromol	HCAPLUS
Murata, J	1989	11	97	Int J Biol Macromol	HCAPLUS
Murata, J	1991	38	212	Int J Pept Protein R	HCAPLUS
Murata, J	1989	80	866	Jpn J Cancer Res	HCAPLUS
Murata, J	1990	81	506	Jpn J Cancer Res	HCAPLUS
Muzzareill, R	1978		139	Chitin	
Nicolson, G	1987	47	1473	Cancer Res	HCAPLUS
Nicolson, G	1989	9	102	Invasion Metastasis	MEDLINE
Nishikawa, N	1996	6	2725	Bioorg Med Chem Lett	HCAPLUS
Obara, M	1988	53	649	Cell	HCAPLUS
Oku, N	1996	58	2263	Life Sci	HCAPLUS
Oppenheimer, S	1975	92	122	Exp Cell Res	HCAPLUS
Osborn, L	1989	59	1203	Cell	HCAPLUS
Pearlstein, E	1980	77	4336	Proc Natl Acad Sci U	MEDLINE
Picker, L	1991	66	921	Cell	HCAPLUS
Pierschbacher, M	1982	309	30	Nature	
Pober, J	1987	138	3319	J Immunol	HCAPLUS
Presta, M	1986	6	4060	Mol Cell Biol	HCAPLUS
Raz, A	1981	41	3642	Cancer Res	HCAPLUS
Reber, S	1990	46	919	Int J Cancer	MEDLINE
Rice, G	1989	246	1303	Science	HCAPLUS
Roossien, F	1990	50	3509	Cancer Res	
Rosenberg, R	1978	75	3065	Proc Natl Acad Sci U	HCAPLUS
Ruoslahti, E	1987	238	491	Science	HCAPLUS
Ruoslathti, E	1986	44	517	Cell	
Saiki, I	1989	59	194	Br J Cancer	HCAPLUS
Saiki, I	1989	60	722	Br J Cancer	HCAPLUS
Saiki, I	1989	49	3815	Cancer Res	HCAPLUS
Saiki, I	1990	50	3631	Cancer Res	HCAPLUS
Saiki, I	1989	11	23	Int J Biol Macromol	HCAPLUS
Saiki, I	1996	65	833	Int J Cancer	HCAPLUS

Saiki, I	1990	81	1003	Jpn J Cancer Res	HCAPLUS
Saiki, I	1990	81	660	Jpn J Cancer Res	HCAPLUS
Saiki, I	1990	81	668	Jpn J Cancer Res	HCAPLUS
Saiki, I	1991	82	1112	Jpn J Cancer Res	HCAPLUS
Saiki, I	1991	82	1120	Jpn J Cancer Res	HCAPLUS
Saiki, I	1993	84	326	Jpn J Cancer Res	HCAPLUS
Saiki, I	1993	84	558	Jpn J Cancer Res	HCAPLUS
Saito, T	1985	134	1815	J Immunol	HCAPLUS
Sasaki, M	1987	262	17111	J Biol Chem	HCAPLUS
Sasaki, M	1987	84	935	Proc Natl Acad Sci U	HCAPLUS
Schor, A	1983	141	385	J Pathol	MEDLINE
Schultz, R	1988	48	5539	Cancer Res	HCAPLUS
Shimoyama, Y	1991	57	131	Cancer Lett	MEDLINE
Shimoyama, Y	1992	52	5770	Cancer Res	HCAPLUS
Smith, C	1991	10	61	Cancer Metastasis Re	HCAPLUS
Springer, T	1990	346	425	Nature	HCAPLUS
Springer, T	1991	349	196	Nature	MEDLINE
Straus, A	1989	183	126	Exp Cell Res	HCAPLUS
Stromblad, S	1996	98	426	J Clin Invest	HCAPLUS
Suzuki, S	1985	4	2519	EMBO J	HCAPLUS
Takeda, K	1991	47	413	Int J Cancer	MEDLINE
Takeichi, M	1991	251	1451	Science	HCAPLUS
Taylor, S	1982	297	307	Nature	HCAPLUS
Terranova, V	1986	77	311	J Natl Cancer Inst	MEDLINE
Townsend, S	1994	54	6477	Cancer Res	HCAPLUS
Townsend, S	1993	259	368	Science	HCAPLUS
Tsubura, E	1977	20	147	Gann Monogr Cancer R	HCAPLUS
Turpeenniemi-Hujanen, T	1986	261	1883	J Biol Chem	HCAPLUS
Ugen, K	1988	80	1461	J Natl Cancer Inst	HCAPLUS
Vanky, F	1990	31	19	Cancer Immunol Immun	HCAPLUS
Wewer, U	1987	47	5691	Cancer Res	HCAPLUS
Wolf, M	1987	40	788	Int J Cancer	MEDLINE
Yoneda, J	1995	217	169	Exp Cell Res	HCAPLUS
Yoneda, J	1994	85	723	Jpn J Cancer Res	HCAPLUS
Zhu, D	1991	88	9568	Proc Natl Acad Sci U	HCAPLUS

L115 ANSWER 16 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:317813 HCAPLUS
DN 126:288107
TI **Antiinflammatory** agents containing chitin derivatives
IN Tokura, Seiichi; Minami, Saburo; Tanioka, Shinichiro; Myazaki, Satoshi
PA San Fuaibu Kk, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 09059164	A2	19970304	JP 1995-212003	19950821 <--
PRAI JP 1995-212003		19950821 <--		

AB **Antiinflammatory** agents contain phosphated chitin, phosphated carboxymethylated chitin, or their salts as active ingredients. Powdered chitin (1.2 kg) was purified from 10 kg calamaries. Then, the powdered chitin (10 g) was dispersed in a mixture of DMF and urea and treated with H3PO4 and then with aqueous NaOH to give .apprx.12 g chitin phosphate Na salt (I). I (at 5.4 mg/kg i.v.) was effective in treatment of stomatitis in cats.
IT **52519-63-8DP**, Carboxymethyl chitin, phosphates **72429-67-5P** **99549-27-6P** **189084-81-9P**

(103 ref.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of chitin phosphates as **antiinflammatory** agents)

IT **1398-61-4P**, Chitin
RL: PUR (Purification or recovery); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chitin phosphates as **antiinflammatory** agents)

L115 ANSWER 17 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:380786 HCAPLUS
DN 125:95891
TI Synthesis of CM-chitin/**doxorubicin** conjugate attached through **tetrapeptide** spacer groups and release behavior of **doxorubicin** from itself in, vitro
AU Ouchi, Tatsuro; Nonomura, Koji; Hirai, Keiichi; Ohya, Yuichi
CS Faculty Engineering, Kansai University, Suita, 564, Japan
SO Chitin World, [Proceedings from the International Conference on Chitin and Chitosan], 6th, Gdynia, Pol., Aug. 16-19, 1994 (**1994**), 350-356. Editor(s): Karnicki, Zbigniew S. Publisher: Wirtschaftsverlag NW, Bremerhaven, Germany.
CODEN: 62YQAK
DT Conference
LA English
AB Chitin is a non-toxic, biocompatible and biodegradable polysaccharide. 6-O-carboxymethyl-chitin (CM-chitin) is a water-soluble chitin derivative In order to provide a water-soluble macromol. prodrug of **doxorubicin** (DXR) reducing the side-effects and exhibiting high antitumor activity, the fixation of DXRs to CM-chitin through covalent bonds was carried out. Two kinds of conjugate, the CM-chitin/Gly-Phe-Leu-Gly/DXR conjugate having lysosomally digestible **tetrapeptide** spacer groups and the CM-chitin/C5/DXR conjugate having pentamethylene spacer groups, were synthesized and the effect of the kind of spacer group species on the release behavior of DXR from the conjugates was investigated. The CM-chitin/Gly-Phe-Leu-Gly/DXR conjugate showed the specific fast release rate of DXR in the presence of the lysosomal enzyme (cathepsin B) at 37° in vitro. On the contrary, the CM-chitin/C5/DXR conjugate did not show such a specific release behavior. Furthermore, the antitumor activities of these conjugates were investigated in vitro and in vivo.
IT **1398-61-4**, Chitin **23214-92-8D, Doxorubicin**, spacer group conjugates with carboxymethylchitin **52519-63-8D**, Carboxymethylchitin, spacer group conjugates with **doxorubicin**
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of carboxymethylchitin-**doxorubicin** conjugate attached through **tetrapeptide** spacer groups and release behavior of **doxorubicin** from itself)

L115 ANSWER 18 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:71305 HCAPLUS
DN 124:126885
TI Skin cosmetics containing natural salt
IN Nakagawa, Momoki
PA Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI JP 07304624 A2 19951121 JP 1994-130773 19940509 <--
PRAI JP 1994-130773 19940509 <--
AB Antiaging cosmetics contain natural salt, chitosan (CM chitin) and **polypeptides** with addition of colorants, perfumes, and/or pharmaceutical natural products. A skin cosmetic contained natural salt comprising NaCl 85.0, Na2SO4 8.5, MgSO4 6.5, CaO and K2O ≤0.2 each, and harmful As, Cd, Cu, Pb, Zn and Br ≤ 0.01% in addition to other active ingredients and base materials.
IT **9012-76-4**, Chitosan **52519-63-8**, Carboxymethylchitin
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(antiaging cosmetics containing natural salt, **polypeptide** and chitosan)

L115 ANSWER 19 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:918401 HCAPLUS
DN 123:322010
TI Novel drug delivery system by chitin derivative
AU Tokura, Seiichi; Nishi, Norio; Takahashi, Kiyohisa; Shirai, Akihiro; Uraki, Yasumitsu
CS Graduate School of Environmental Earth Science, Hokkaido University, Sapporo, 060, Japan
SO Macromolecular Symposia (**1995**), 99(Functional Polysaccharides), 201-8
CODEN: MSYMEC; ISSN: 1022-1360
PB Huethig & Wepf
DT Journal
LA English
AB A porous chitin foam was regenerated from chitin dope in calcium chloride dihydrate saturated methanol. The porous chitin foam was shown to have cationic property, because chitin foam tended to adsorb anionic dyes through ionic binding and hydrophobic interaction. A pendant type of polymeric drug was prepared applying **peptide** spacer composed of phenylalanine at amino end and two step hydrolysis of polymeric drug were shown to release active drug at the final step using lysozyme and chymotrypsin in vitro.
IT **1398-61-4**, Chitin **52519-63-8**, O-Carboxymethyl chitin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(porous chitin foam as controlled-release drug delivery system)

L115 ANSWER 20 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:534814 HCAPLUS
DN 121:134814
TI Preparation of cell-adhesive **peptide** bonded to polysaccharides
IN Mori, Hideto; Komazawa, Hiroyuki; Saiki, Ikuo; Azuma, Ichiro
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06128289	A2	19940510	JP 1992-280292	19921019 <--
PRAI JP 1992-280292		19921019 <--		

OS MARPAT 121:134814
AB Polysaccharides bonded to **peptides** X-Tyr-Ile-Gly-Ser-Arg-Y (X = absent, Glu, Asp; Y = NR1R2; R1, R2 = H, C1-4 alkyl) are prepared, which contain cell-adhesive core sequence of cell adhesive protein laminin. Typical polysaccharides are chondroitin sulfate, hyaluronic acid, and

(carboxymethyl)chitin. These **peptide**-polysaccharide conjugates retain various biol. activities of laminin, show high serum stability, more potent cell adhesiveness than the core sequence of laminin, and little side-effects, and are useful as cancer metastasis inhibitors. Thus, H-Tyr-Ile-Gly-Ser-Arg-NHCHMe2.2AcOH (I) was prepared by the solution method and condensed with carboxymethyl chitin by using 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide in 200 mM phosphate buffer (pH 7.4) to give I-carboxymethyl chitin conjugate containing 23 weight% **peptide**. In cancer metastasis assay, the latter **glycopeptide** reduced number of colonies of B16-BL6 melanoma cells formed in lungs of mice from 177±28 (control group) to 17±9.

IT **52519-63-8DP**, Carboxymethyl chitin, conjugate with laminin cell-adhesive core sequence-related **peptide**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as cell adhesion and cancer metastasis inhibitor)

L115 ANSWER 21 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:525236 HCAPLUS
DN 121:125236
TI Water-soluble chitin or chitosan for treatment of arthritis
IN Nakagawa, Akira; Myata, Satoru; Shimozono, Juji; Soejima, Yoshiomi; Saida, Masaru
PA Hisamitsu Pharmaceutical Co, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 06107551	A2	19940419	JP 1992-286967	19920930 <--
PRAI JP 1992-286967		19920930 <--		

AB Water-soluble chitin [e.g. carboxymethylchitin (I), dihydroxypropylchitin, hydroxyethylchitin, and carboxylchitin] or water-soluble chitosan (e.g. chitosan oligosaccharides, N-succinylchitosan, and hydroxypropylchitosan) are useful for treatment of arthritis. Administration of solution containing 0.5% I to the knee joints showed greater analgesic effect in bradykinin-administered rats than that of a control containing Na hyaluronate.

IT **9012-76-4D**, Chitosan, enzymic hydrolyzate **9056-32-0** **52519-63-8**, Carboxymethylchitin **78809-92-4**, N-Succinylchitosan **84069-44-3**, Hydroxypropylchitosan **84617-10-7**, Dihydroxypropylchitin
RL: BIOL (Biological study)
(arthritis treatment with)

L115 ANSWER 22 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:473202 HCAPLUS
Correction of: 1994:182560
DN 121:73202
Correction of: 120:182560
TI Synthesis of a MDP analog/chitin conjugate that stimulates cultured macrophages
AU Ohya, Yuichi; Murata, Junichi; Nishimoto, Takehiro; Ouchi, Tatsuro
CS Fac. Eng., Kansai Univ., Suita, 564, Japan
SO Journal of Bioactive and Compatible Polymers (**1993**), 8(4), 351-64
CODEN: JBCPEV; ISSN: 0883-9115
DT Journal
LA English
AB To provide a new synthetic biol. response modifier which exhibits a high

immunopotentiation activity and antitumor activity, a hybrid conjugate of chitin with immobilized D-glucose analog of muramyl **dipeptide** (MDP) (GADP) was synthesized. The stimulation activity of the conjugate against cultured macrophages was evaluated as an immunopotentiation activity in vitro by glucose consumption using PMA (phorbol-12-myristate-13-acetate)-differentiated HL-60 (human promyelocytic leukemia) cells and by superoxide anion (O2-) production from PMA-differentiated HL-60 cells. The stimulation activity of the GADP/chitin conjugate against cultured macrophages was greater than that of GADP derivative, carboxymethyl-chitin and a mixture of these two. The stimulation activity of GADP against cultured macrophages was increased by conjugation with chitin.

IT **52519-63-8DP**, conjugates with MDP analogs
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for tumor immunotherapy)

L115 ANSWER 23 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:218328 HCAPLUS
DN 120:218328
TI Design of D-glucose analog of MDP/polysaccharide conjugates and their immunological enhancement activities
AU Ouchi, T.; Ohya, Y.
CS Fac. Eng., Kansai Univ., Suita, 564, Japan
SO New Funct. Mater. (**1993**), Volume B, 181-8. Editor(s): Tsuruta, Teiji. Publisher: Elsevier, Amsterdam, Neth.
CODEN: 59NKAJ
DT Conference
LA English
AB Hybrid type conjugates of or carboxymethylcurdlan carboxymethylchitin immobilizing D-glucose analog of N-acetylmuramyl-L-alanyl-D-isoglutamine were prepared and their immunol. enhancement activities were described.
IT **52519-63-8**, Carboxymethylchitin
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling with **glycopeptide**)
IT **52519-63-8DP**, reaction products with **muramoyldipeptide** glucose analog
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and immunol. activity of)

L115 ANSWER 24 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:633997 HCAPLUS
DN 119:233997
TI Selective adsorption of **peptides** to carboxymethylated chitin
AU Miura, Y.; Kaneda, Y.; Matsubara, N.; Nakano, H.; Tokura, S.
CS Fac. Sci., Hokkaido Univ., Sapporo, 060, Japan
SO Front. New Horiz. Amino Acid Res., Proc. Bienn. Int. Conf., 1st (**1992**), Meeting Date 1991, 385-9. Editor(s): Takai, Katsuji. Publisher: Elsevier, Amsterdam, Neth.
CODEN: 59HEA5
DT Conference
LA English
AB A 6-O-carboxymethyl-chitin (CM-chitin), one of the biodegradable derivs. from mucopolysaccharide, was studied as a carrier for sustained release of drugs by applying its several advantages for drug delivery system. The **peptides** containing neutral amino acid residue, especially phenylalanine (Phe), were found to be adsorbed specifically and stabilized by entrapping until CM-chitin was biodegraded to oligomers of small size.
IT **52519-63-8**, Carboxymethyl chitin
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(**peptides** adsorption by, drug delivery in relation to)

L115 ANSWER 25 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:610434 HCAPLUS
DN 119:210434
TI Design of water-soluble CM-chitin/antitumor drug conjugate
AU Ouchi, Tatsuro; Inosaka, Keigo; Murata, Junichi; Nishimoto, Takehiro; Ohya, Yuichi
CS Fac. Eng., Kansai Univ., Suita, 564, Japan
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (**1992**), 33(2), 537-8
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
AB Conjugates of 5-fluorouracil with carboxymethyl chitin showed decreased side effects and conjugates of the glucose analog of muramylalanylisoglutamine with CM-chitin showed increased immunol. activity.
IT **52519-63-8DP**, conjugates with fluorouracil or muramyl **dipeptide** glucose analog
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and biol. activity of)

L115 ANSWER 26 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:546447 HCAPLUS
DN 119:146447
TI Stabilization of drug-linked **peptides** by 6-O-carboxymethyl chitin
AU Miura, Yoshiaki; Kaneda, Yoshihiro; Uraki, Yasumitsu; Tokura, Seiichi
CS Fac. Sci., Hokkaido Univ., Sapporo, 060, Japan
SO Adv. Chitin Chitosan, [Proc. Int. Conf.], 5th (**1992**), Meeting Date 1991, 116-24. Editor(s): Brine, Charles J.; Sanford, Paul A.; Zikakis, John P. Publisher: Elsevier, London, UK.
CODEN: 58YVAW
DT Conference
LA English
AB While studying the specific adsorption of a model drug containing phenylalanine to 6-O-carboxymethyl chitin (CM-chitin)-Ca2+ complex, it was observed that CM-chitin loses its adsorption capacity for the model drug, and releases the drug when it is degraded by lysozyme (one step release). When prodrugs were adsorbed into the CM-chitin-Ca2+ complex or were attached to CM-chitin through an enzyme susceptible spacer, the degradation of the CM-chitin backbone (first step) resulted in a sustained release of the prodrug. In the second step, the prodrug was converted to an active drug by a second enzymic hydrolysis (two step release). In the study of the pendant type of polymeric prodrug, it was also shown that the susceptibility for the second enzyme was enhanced with the decrease of the mol. weight of CM-chitin due to lysozymic hydrolysis.
IT **52519-63-8 52519-63-8D**, calcium complexes
RL: BIOL (Biological study)
(stabilization of **peptide** drugs by, prodrugs in relation to)

L115 ANSWER 27 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:639902 HCAPLUS
DN 117:239902
TI Ionically-cross-linked carboxyl-containing polysaccharides for post-operative adhesion prevention
IN Huang, W. James; Johns, Douglas B.; Kronenthal, Richard L.
PA Ethicon Inc., USA; Lifecore Biomedical, Inc.
SO Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 507604	A2	19921007	EP 1992-302953	19920403 <--
	EP 507604	A3	19931006		
	EP 507604	B1	20050720		
	R: AT, BE, CH, DE, ES, GB, IT, LI, LU, NL				
	AU 9214015	A1	19921008	AU 1992-14015	19920402 <--
	AU 647905	B2	19940331		
	CA 2065111	AA	19921006	CA 1992-2065111	19920403 <--
	CA 2065111	C	19991109		
	AT 299706	E	20050815	AT 1992-302953	19920403 <--
	EP 1593394	A2	20051109	EP 2005-76407	19920403 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	BR 9201215	A	19921201	BR 1992-1215	19920406 <--
	JP 05124968	A2	19930521	JP 1992-112371	19920406 <--
	JP 2702641	B2	19980121		
PRAI	US 1991-680955	A	19910405 <--		
	EP 1992-302953	A3	19920403 <--		

AB Post-operative adhesion is reduced by topical application of a ionically cross-linked carboxyl-containing polysaccharide, such as CM-cellulose, carboxymethylchitin, hyaluronic acid, or their salts with alkali or alkaline-earth metals. The crosslinking agents are FeCl3, AlCl3, Al2(SO4)3 or Cr2(SO4)3. The composition may also contain **inflammation** inhibitors, growth factors or **antibiotics**.
IT **52519-63-8D**, Carboxymethylchitin, cross-linked, ionically
RL: USES (Uses)
(post-surgical adhesion prevention by)

L115 ANSWER 28 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:406741 HCAPLUS
DN 113:6741
TI Preparation of acidic polysaccharide esters as medicaments or biodegradable plastic materials, or for pharmaceutical vehicles and cosmetic preparations
IN Della Valle, Francesco; Romeo, Aurelio
PA Fidia S.p.A., Italy
SO PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8910940	A1	19891116	WO 1989-EP520	19890512 <--
	W: AU, DK, FI, HU, JP, KR				
	EP 342557	A1	19891123	EP 1989-108628	19890512 <--
	EP 342557	B1	19941123		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	AU 8935718	A1	19891129	AU 1989-35718	19890512 <--
	AU 629551	B2	19921008		
	HU 53127	A2	19900928	HU 1989-3005	19890512 <--
	HU 208440	B	19931028		
	JP 02504164	T2	19901129	JP 1989-505459	19890512 <--
	JP 2958373	B2	19991006		
	US 5122598	A	19920616	US 1989-350920	19890512 <--
	EP 615979	A2	19940921	EP 1994-107393	19890512 <--

EP 615979 A3 19941228
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
ES 2063779 T3 19950116 ES 1989-108628 19890512 <--
CA 1336087 A1 19950627 CA 1989-599556 19890512 <--
IL 90273 A1 19951127 IL 1989-90273 19890512 <--
DK 9000108 A 19900312 DK 1990-108 19900112 <--
US 5466461 A 19951114 US 1992-862370 19920402 <--
PRAI IT 1988-47963 A 19880513 <--
EP 1989-108628 A3 19890512 <--
US 1989-350920 A3 19890512 <--
WO 1989-EP520 A 19890512 <--
AB Total and partial esters of acidic polysaccharides chosen from (carboxymethyl)cellulose (I), -starch, and -methylchitin with aliphatic, araliph., or cycloaliph alcs. including pharmacol. active substances (e.g. alkaloids, anticonvulsants, and analgesics) and salts of such partial esters with (in)organic bases including therapeutically active amines (e.g. **peptides**, alkaloids, hormones, vitamins, and antivirals) are prepared They are useful as medicaments or biodegradable plastic materials for the preparation of sanitary and surgical articles (e.g. artificial skin in dermatol., surgical suture threads and sponges), as pharmaceutical vehicles (e.g. capsules for s.c. implant of medicament, microcapsules for s.c., i.m. or i.v. injection, and in other fields such as cosmetics, food or paper industry, adhesive products, etc. Thus, Bu4N+ salt of I (5.15 g) with a 0.75 substitution rate and medium viscosity was solubilized in DMSO at 25° with agitation and 1.71 g PhCH2Br was added and the solution stirred overnight at 30° to give, after precipitation and washing with EtOAc, 3.04g benzyl ester of I.
IT **127565-90-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of)
IT **126041-92-7P 126041-93-8P 126041-94-9P 126041-95-0P 126601-85-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as biodegradable plastic and pharmaceutical vehicle and for cosmetics)
IT **52519-63-8DP**, Carboxymethylchitin, esters
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as biodegradable plastics and pharmaceutical vehicles and for cosmetics)

L115 ANSWER 29 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:406740 HCAPLUS
DN 113:6740
TI Preparation of crosslinked carboxy polysaccharides as biodegradable plastic materials for cosmetics and pharmaceuticals
IN Della Valle, Francesco; Romeo, Aurelio
PA Fidia S.p.A., Italy
SO Eur. Pat. Appl., 37 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 341745	A1	19891115	EP 1989-108630	19890512 <--
EP 341745	B1	19941214		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
WO 8910941	A1	19891116	WO 1989-EP519	19890512 <--
W: AU, DK, FI, HU, JP, KR				

AU 8935747	A1	19891129	AU 1989-35747	19890512	<--
AU 631125	B2	19921119			
HU 53666	A2	19901128	HU 1989-3636	19890512	<--
HU 210926	B	19950928			
JP 02504163	T2	19901129	JP 1989-505458	19890512	<--
JP 2941324	B2	19990825			
EP 614914	A2	19940914	EP 1994-108633	19890512	<--
EP 614914	A3	19941228			
EP 614914	B1	20000816			
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
ES 2064378	T3	19950201	ES 1989-108630	19890512	<--
IL 90274	A1	19960912	IL 1989-90274	19890512	<--
CA 1339122	A1	19970729	CA 1989-599557	19890512	<--
JP 10324701	A2	19981208	JP 1998-152832	19890512	<--
AT 195534	E	20000915	AT 1994-108633	19890512	<--
ES 2151910	T3	20010116	ES 1994-108633	19890512	<--
DK 9000109	A	19900312	DK 1990-109	19900112	<--
DK 175386	B1	20040920			
FI 107050	B1	20010531	FI 1990-188	19900112	<--
US 5676964	A	19971014	US 1995-465055	19950605	<--
GR 3034651	T3	20010131	GR 2000-402339	20001023	<--
PRAI IT 1988-47964	A	19880513	<--		
EP 1989-108630	A3	19890512	<--		
JP 1989-505458	A3	19890512	<--		
US 1989-350919	B1	19890512	<--		
WO 1989-EP519	A	19890512	<--		
US 1993-70505	A1	19930601	<--		

AB Inter- and/or intramol. esters of acid polysaccharides containing carboxy functions (e.g. auto-crosslinked polysaccharides), wherein (1) a first portion or all of the carboxy groups are esterified with hydroxy groups of the same mol. and/or of different mols. of the acid polysaccharide and/or (2) a second portion of the carboxy groups are esterified with a mono- or polyvalent alcs. including various drugs (e.g. alkaloids, anesthetic, analgesic, **antiinflammatory**, antiviral, antibacterial, etc.) and optionally salified with an alkali or alkaline earth metal, Mg, Al, or an amine including various drugs (e.g. alkaloids, **peptides**, antipsychotics, phenothiazine, vasoconstrictors, etc.), are prepared by treating an acidic polysaccharide (e.g., hyaluronic acid, alginic acid, CM-cellulose, carboxymethylchitin) with an activating agent (e.g. 2-chloro-1-methylpyridinium iodide) and subjecting the resulting intermediate activated polysaccharide derivs. to heat or irradiation These auto-crosslinked polysaccharide acids are useful in the field of biodegradable plastic materials to manufacture sanitary and surgical articles (e.g. surgical suture thread, film for artificial skin, and sponges for the medication of wounds and lesions), for pharmaceutical vehicles for controlled-release of drugs (capsules for the s.c. implantation of medicaments or microcapsules for s.c., i.m., or i.v. injection), etc.

IT **105156-94-3**, Carboxymethylchitin sodium salt **127565-90-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, by inter- and/or intramol. esterification)

IT **52519-63-8DP**, Carboxymethylchitin, cross-linked, sodium salt
52519-63-8DP, Carboxymethylchitin, cross-linked, sodium salt, Et ester
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, for cosmetics, pharmaceutical vehicles, or medical goods)

L115 ANSWER 30 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1981:180713** HCAPLUS
DN 94:180713
TI Surgical lubricating powder for natural or synthetic rubber surgical

elements
IN Casey, Donald James
PA American Cyanamid Co., USA
SO Brit., 9 pp.
CODEN: BRXXAA
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1583180	A	19810121	GB 1977-44643	19771026 <--
	US 4059097	A	19771122	US 1976-738502	19761103 <--
	US 4064564	A	19771227	US 1976-738200	19761103 <--
	US 4068757	A	19780117	US 1976-738501	19761103 <--
	BE 860423	A1	19780503	BE 1977-182300	19771103 <--
PRAI	US 1976-738200	A	19761103	<--	
	US 1976-738501	A	19761103	<--	
	US 1976-738502	A	19761103	<--	

AB A sterile surgical laminate package comprised a strippable laminate container containing a sterile rubber glove, on the surface of which was a lubricating powder consisting essentially of 1.5 g of an enzymically degradable form of poly(N-acetyl-D-glucosamine) (I) [27555-50-6]; the powder's particle size was 0.5-149 μ and it would pass through a 200 mesh screen. I was prepared by grinding com. **chitin** in a ball mill to a particle size of between 1 and 6 mm, followed by sequential treatment with 2N HCl, 90% HCO2H, and 10% NaOH. I could be used per se or converted into I membranes, poly[N-acetyl-6-O-(**carboxymethyl**)-D-glucosamine] [**57216-53-2**], poly[N-acetyl-6-O-(2'-hydroxyethyl)-D-glucosamine] [57216-54-3], or poly(N-acetyl-6-O-ethyl-D-glucosamine) [57216-56-5].
IT **57216-53-2P**
RL: PREP (Preparation)
(preparation of, as surgical glove lubricant)

L115 ANSWER 31 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1978:197685** HCAPLUS
DN 88:197685
TI **Chitin** derived powder in sterile surgical element package
IN Casey, Donald James
PA American Cyanamid Co., USA
SO U.S., 8 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4068757	A	19780117	US 1976-738501	19761103 <--
	AU 7729651	A1	19790426	AU 1977-29651	19771013 <--
	GB 1583180	A	19810121	GB 1977-44643	19771026 <--
	DE 2748231	A1	19780518	DE 1977-2748231	19771027 <--
	SE 7712400	A	19780503	SE 1977-12400	19771102 <--
	DK 7704873	A	19780504	DK 1977-4873	19771102 <--
	JP 53058186	A2	19780525	JP 1977-130946	19771102 <--
	NL 7712138	A	19780508	NL 1977-12138	19771103 <--
	FR 2369826	A1	19780602	FR 1977-33071	19771103 <--
PRAI	US 1976-738200	A	19761103	<--	
	US 1976-738501	A	19761103	<--	
	US 1976-738502	A	19761103	<--	

AB Natural or synthetic surgical goods are lubricated by a finely divided

chitin-derived biodegradable powder of poly(N-acetyl-D-glucosamine) [27555-50-6], poly[N-acetyl-6-O-(**carboxymethyl**)-D-glucosamine [**57216-53-2**], poly[N-acetyl-6-O-ethyl-D-glucosamine [57216-56-5], or poly[N-acetyl-6-O-(2'-hydroxyethyl)-D-glucosamine [57216-54-3]. Lubricated gloves may be sterilized with no adverse effect on the disirable properties of the powder. The powder is readily absorbed by living tissue without deleterious tissue reaction. Thus, poly(N-acetyl-D-glucosamine) was obtained from powdered **chitin** by extraction with 2N HCl (decalcification), washing the material with water till neutral, and stirring it with 90% HCO2H overnight at room temperature The mixture was centrifuged and water-washed residue was suspended in 10% NaOH and heated at 90-100° for 2.5 h. The cake obtained after filtering, was washed with water until neutral and dried at 40°.

IT **1398-61-4D**, hydrolyzates
RL: BIOL (Biological study)
(as surgical rubber lubricant)

IT **57216-53-2P**
RL: PREP (Preparation)
(**chitin** derived surgical good lubricant, preparation of)

L115 ANSWER 32 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1978:126373** HCAPLUS
DN 88:126373
TI Minimizing tissue reaction during surgery with **chitin**
IN Casey, Donald James
PA American Cyanamid Co., USA
SO U.S., 8 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4059097	A	19771122	US 1976-738502	19761103 <--
	AU 7729651	A1	19790426	AU 1977-29651	19771013 <--
	GB 1583180	A	19810121	GB 1977-44643	19771026 <--
	DE 2748231	A1	19780518	DE 1977-2748231	19771027 <--
	SE 7712400	A	19780503	SE 1977-12400	19771102 <--
	DK 7704873	A	19780504	DK 1977-4873	19771102 <--
	JP 53058186	A2	19780525	JP 1977-130946	19771102 <--
	NL 7712138	A	19780508	NL 1977-12138	19771103 <--
	FR 2369826	A1	19780602	FR 1977-33071	19771103 <--
PRAI	US 1976-738200	A	19761103 <--		
	US 1976-738501	A	19761103 <--		
	US 1976-738502	A	19761103 <--		

GI For diagram(s), see printed CA Issue.
AB Surgical rubber gloves are lubricated by applying finely powdered biodegradable poly(**N**-acetyl-D-glucosamine) (I) [27555-50-6], poly[**N**-acetyl-6-**O**-(**carboxymethyl**)-D-glucosamine] [**57216-53-2**], poly[**N**-acetyl-6-**O**-(2'-hydroxyethyl)-D-glucosamine] [57216-56-5], or poly[**N**-acetyl-acetyl-6-**O**-(ethyl)-D-glucosamine] [57216-54-3]. These powders were readily absorbed by living tissue without deleterious tissue reactions. The polymers were derived from **chitin** [**1398-61-4**]. Thus, finely ground com. **chitin** was decalcified by extracting with 2N HCl at 4° for 48 h. The material was collected by centrifugation and washed with water till neutral. The decalcified **chitin** was stirred at room temperature with HCO2H overnight. The mixture was centrifuged and the residue was washed with water. The washed **chitin** was suspended in 10% NaOH and was

heated at 90-100° for 2.5 h. The solution was filtered, washed till neutral, and dried to give pure I.

IT **57216-53-2**
RL: PROC (Process)
(as lubricant, for surgical rubber goods, preparation of)

IT **1398-61-4**
RL: BIOL (Biological study)
(N-acetylglucosamine polymers derived from, for surgical rubber goods)

L115 ANSWER 33 OF 33 HCAPLUS COPYRIGHT 2005 ACS on STN
AN **1976:35314** HCAPLUS
DN 84:35314
TI Enzymically decomposable bioerodible pharmaceutical carrier
IN Capozza, Richard C.
PA American Cyanamid Co., USA
SO Ger. Offen., 24 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 2505305	A1	19750821	DE 1975-2505305	19750207	<--
	US 3911098	A	19751007	US 1974-441695	19740211	<--
	ZA 7500472	A	19760128	ZA 1975-472	19750122	<--
	IL 46496	A1	19780831	IL 1975-46496	19750123	<--
	AU 7577602	A1	19760729	AU 1975-77602	19750124	<--
	GB 1499751	A	19780201	GB 1975-4193	19750130	<--
	NL 7501365	A	19750813	NL 1975-1365	19750205	<--
	CA 1045975	A1	19790109	CA 1975-219603	19750207	<--
	BE 825367	A1	19750811	BE 1975-153217	19750210	<--
	SE 7501464	A	19750812	SE 1975-1464	19750210	<--
	RO 68711	P	19801030	RO 1975-81371	19750210	<--
	FR 2260356	A1	19750905	FR 1975-4245	19750211	<--
	DD 118801	C	19760320	DD 1975-184115	19750211	<--
	ES 434618	A1	19770416	ES 1975-434618	19750211	<--
	CS 207808	B	19810831	CS 1975-860	19750211	<--
	JP 50123815	A2	19750929	JP 1975-16958	19750212	<--
PRAI	US 1974-441695	A	19740211	<--		

AB An enzymically degradable form of poly(N-acetyl-D-glucosamine) (**chitin**) [27555-50-6] served as a matrix for controlled release of drugs, especially in the eye. Degradable forms included also poly(N-acetyl-6-O-**carboxymethyl**-D-glucosamine) [**57216-53-2**], poly[N-acetyl-6-O-(2-hydroxyethyl)-D-glucosamine] [57216-54-3], and poly(N-acetyl-6-O-ethyl-D-glucosamine) [57216-56-5], all of which were degraded by lysozyme [9001-63-2]. Preparation of these polymers from com. **chitin** was described. Films of the latter 3 polymers were prepared from aqueous solns.; suitable solvents for poly(N-acetyl-D-glucosamine) were hexafluoroacetone [684-16-2] sesquihydrate and hexafluoroisopropanol [920-66-1]. Thus, 50 mg pilocarpine nitrate [148-72-1] was added to a 5% aqueous solution of poly(N-acetyl-6-O-**carboxymethyl**-D-glucosamine) (0.95 g) and poured on a glass plate to form a 1.02 mm film which was dried and soaked in 10% alum solution for 5 hr. A 1 + 10 mm section of this film, placed on the eye surface of rabbits, was well tolerated and caused pupil contraction lasting 6 hr.

IT **57216-53-2**
RL: PRP (Properties)
(pharmaceutical controlled release from matrix of, in eye)

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L150 ANSWER 1 OF 21  WPIX  COPYRIGHT 2005 THE THOMSON CORP on STN
AN   2005-655663 [67]   WPIX
DNC  C2005-198184
TI   Hydrogel composition useful for preventing the intrusion of
     micro-organisms into body cavities or body openings of mammals comprises a
     poly(N-vinyl lactam), a polysaccharide and water.
DC   A18 A25 A26 A96 B04 B05 C07 D21 D22
IN   BUONGIOVANNI, D; GRUENING, R; PERSCHBACHER, D J; QU, X; QU, X Y
PA   (HYDR-N) HYDROMER INC; (BUON-I) BUONGIOVANNI D; (GRUE-I) GRUENING R;
     (PERS-I) PERSCHBACHER D J; (QUXY-I) QU X Y
CYC  109
PI   US 2005191270   A1 20050901 (200567)*      11    A61K031-785    <--
     WO 2005086641   A2 20050922 (200567)  EN         A61K000-00     <--
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            ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE
            DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
            KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ
            OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA
            UG US UZ VC VN YU ZA ZM ZW
ADT  US 2005191270 A1 US 2004-788663 20040227; WO 2005086641 A2 WO 2005-US5323
     20050218
PRAI US 2004-788663       20040227
IC   ICM  A61K000-00; A61K031-785
     ICS  A61K009-14
AB   US2005191270 A UPAB: 20051019
     NOVELTY - A hydrogel composition comprises a poly(N-vinyl lactam), a
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polysaccharide and water (25 - 90, preferably 45 - 75, especially 55 - 65 weight%).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a contraceptive hydrogel comprising a poly(N-vinyl lactam), a polysaccharide, water (25 - 55 weight%) and a spermicide. The weight ratio of the poly(N-vinyl) lactam to the polysaccharide is 75:1 - 1:5, 50:1 - 1:1 or 30:1 - 5:1.

ACTIVITY - Antimicrobial.

MECHANISM OF ACTION - Microbial growth inhibitor.

USE - For inhibiting the intrusion of micro-organisms into a body cavity e.g. natural body cavity (e.g. an ear canal, eye, nasal canal, mouth, genital opening, rectal opening, wrinkle or gland opening such as a teat canal of the milk gland of a dairy animal) or a cavity resulting from an injury (Claimed).

ADVANTAGE - The hydrogel compositions provide disinfecting/sanitizing activity without the need of **antibiotics**. Minimizing the use of **antibiotics** lowers the risk of **antibiotic** side effects, avoids long waiting periods after **antibiotic** applications and decreases the risk of developing **antibiotic** resistance in microorganisms. Moreover, as compared to current dry cow treatments which require complex processing steps, such as curing, and catalytic reactions, the hydrogel compositions are made by a simple mixing procedure. Also as compared to the current dry cow treatments, the hydrogel compositions are stable in a wide temperature range. The hydrogel compositions are biocompatible and lubricious. The hydrogel compositions have a consistency, which enable the hydrogel compositions to efficiently fill, and to remain in, body cavities/openings. Additionally, the consistency of these hydrogels allows for them to be squeezed out in total when needed or desired.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A03-A01; A04-D05; A12-V01; A12-V03B; B01-B02; B03-A; B03-F; B03-H; B04-A08C; B04-A10; B04-B03A; B04-C02A1; B04-C02A2; B04-C02D; B04-C02E1; **B04-C02E3**; B04-C03; B04-N02; B05-A01A; B05-A01B; B05-A03A4; B05-A03A5; B05-A03B; B05-B01P; B05-B02C; B05-C07; B05-C08; B06-D03; B06-D09; B07-H; B09-D02; B10-A09B; B10-A12B; B10-A15; B10-A17; B10-B02J; B10-B04B; B10-C03; B10-C04D; B10-C04E; B10-D01; B10-D03; B10-E02; B10-E04B; B10-E04C; B10-E04D; B11-C02; B11-C04D; B12-M02; B12-M12C; B12-M12D; B14-A01; B14-A02; B14-A04; B14-C03; B14-L06; B14-P01A; C04-A08C; C04-C02A1; C04-C02A2; C04-C02D; C04-C02E1; **C04-C02E3**; C04-C03; C04-N02; C11-C02; C11-C04D; C12-M02; C12-M12C; C12-M12D; C14-A01; C14-A02; C14-A04; C14-C03; C14-L06; C14-P01A; D08-B; D09-A01; D09-A01C

TECH UPTX: 20051019

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Composition: The hydrogel composition further comprises a radio-opaque additive.

Preferred Components: The cross-linker is colloidal silica, colloidal alumina and/or colloidal titanium dioxide. The radio-opaque additive is barium sulfate, iodine contrast media or a tungsten particle.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The composition additionally comprises a dye selected from a control dye, a food dye, a cosmetic dye, a FD and C dye or a D and C approved dye; a consistency modifying and/or performance modifying agent; and a radio-opaque additive.

Preferred Components: The vinyl monomer is selected from an acrylate, a hydroxyalkylacrylate, a methacrylate, an acrylic acid, a methacrylic acid and/or an acrylamide. The cross-linker is glutaraldehyde, genipin, aziridine derivative, carbimide derivative, epoxy, dialdehyde, paraformaldehyde and/or acrylamide. The consistency modifying and/or

performance modifying agent is methyl vinyl ether-co-maleic anhydride. The radio-opaque additive is iodine organic or bismuth organic.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Composition: The hydrogel composition further comprises a radio-opaque additive.
Preferred Components: The cross-linker is colloidal silica, colloidal alumina and/or colloidal titanium dioxide. The radio-opaque additive is barium sulfate, iodine contrast media or a tungsten particle.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The hydrogel composition further comprises a therapeutic performance enhancing agent.
Preferred Components: The therapeutic performance enhancing agent is an antimicrobial, antibacterial, antifungal, anti-candidiasis agent, disinfecting agent, biocide, bactericide, preservative, virucide, spermicide, germicide, sterilant, sanitizing ingredient, deodorizer, antiseptic, sporicide, a pharmaceutical, a veterinary preparation, an **antibiotic**, an **anti-inflammatory** agent, a
plant or seed extract, a plant extract derivative, an herbal preparation and/or a humectant (preferably antimicrobial silver salt, silver zeolite, silver sulfadiazine, ethyl alcohol, isopropyl alcohol, benzyl alcohol, propionic acid, sorbic acid, salicylic acid, undecanoic acid, bleach, iodine, iodophor, potassium iodide, dodecyl benzene sulfonic acid, peroxide, bronopol, terbinafine, miconacole, econacole, clotrimazole, tolnaphthate, triclosan, trichlocarban, quaternary ammonium compound, benzalkonium halogenide, polyquatenium, polyquatenium derivative, formaldehyde releasing compound, hexetidin, chlorhexidine, chlorhexidine derivative, zinc pyrithione, zinc oxide, zinc propionate, paraben, phenoxyethanol, octoxynol-9, nonoxynol-9, ricinoleic acid, phenol mercuric **acetate**, sulfur lactic acid, essential oil of red thyme, allspice, cinnamon, savory, extract of rosemary, echinechea, nettle, fennel, juniper, ginseng, borage, gelsemium, hamamelis, poke root, arnica, aconite, apis, baptisia, thuja, aloe (barbadensis, vera, capensis), green tea, nasturtium, bryonia, eupatorium, and chamomile, acyclovir, idoxyumidine, ribavirin, vidarabine, rimantadine, aspirin, vitamin A and vitamin A derivative, vitamin E and vitamin E derivative, vitamin C and vitamin C derivative, betacarotin, betamethasone, dexamethasone, corticone and/or glycerin).
Preferred Composition: The concentration of the therapeutic performance enhancing agent is 3, 7, 10, 15 or 20 wt.%. Water (15 - 75, 35 - 65 or 45 - 55 wt.%) is replaced by ethyl alcohol or isopropyl alcohol.
TECHNOLOGY FOCUS - POLYMERS - Preferred Composition: The hydrogel composition further comprises a consistency modifying agent, a performance modifying agent and/or a cross-linker; and a radio-opaque additive. The poly(N-vinyl lactam) (0 - 5, 10, 20, 30, 40, 50, 60, 70, 80 or 90 wt.%) is replaced with the consistency and/or performance modifying copolymer.
Preferred Components: The weight ratio of the upper boundary poly(N-vinyl) lactam to polysaccharide is 75:1; 50:1; 30:1; 20:1; 15:1; 13:1; 12:1; or 1:2. The weight ratio of the lower boundary poly(N-vinyl) lactam to polysaccharide is 1:10; 1:5; 1:3, 1:1; 5:1; 12:1; 13:1; 15:1; 20:1; 30:1; or 50:1. The poly(N-vinyl lactam) is a homopolymer, a copolymer and/or a terpolymer of N-vinyl lactam. The poly(N-vinyl lactam) is N-vinylpyrrolidone, N-vinylbutyrolactam and/or N-vinylcaprolactam. The poly(N-vinyl lactam) is a vinyl monomer copolymerized with the N-vinyl lactam. The homopolymer is polyvinylpyrrolidone (PVP). The copolymer is a vinylpyrrolidone copolymer or an acrylamide copolymer. The terpolymer is a vinylpyrrolidone terpolymer, a vinylcaprolactam terpolymer or a dimethylaminoethyl methacrylate terpolymer.
The polysaccharide is **chitin**, **deacetylated**
chitin, **chitosan** or its salt, **chitosan**
sorbate, **chitosan** propionate, **chitosan** lactate,

chitosan salicylate, **chitosan** pyrrolidone **carboxylate**, **chitosan** itaconate, **chitosan** niacinate, **chitosan** formate, **chitosan acetate** , **chitosan** gallate, **chitosan** glutamate, **chitosan** maleate, **chitosan** aspartate, **chitosan** glycolate, quaternary amine substituted **chitosan** salt, N-**carboxymethyl chitosan**, ortho-**carboxymethyl chitosan**, **N**,-**O**-**carboxymethyl chitosan**, equivalent butyl **chitosan** derivative, cellulosic, alkylcellulose, nitrocellulose, hydroxypropylcellulose, starch or its derivative, methyl gluceth derivative, collagen, alginate, hyaluronic acid and/or heparin or its derivative. The consistency modifying and/or performance modifying agent is selected from polyvinyl alcohol, polyvinyl **acetate**, polyethylenoxide, poly(2-hydroxyethyl methacrylate), poly(ethylene-co-vinyl **acetate**), polyethylene glycol diacrylate, poly(N-isopropyl acrylamide), polyurethane, polyethylenimine, **polypeptide**, keratin, polyvinylpyrrolidone/polyethyleneimine, polyvinylpyrrolidone/polycarbamyl/-polyglycol ester, polyvinylpyrrolidone/dimethylaminoethylmethacrylate/polycarbaml/polyglycol ester, polyvinylpyrrolidone/dimethiconylacrylate/polycarbamyl/-polyglycol ester, or lecithin, or their copolymers and/or derivatives. The cross-linker is polyaminosilane, primary polyamine, polyaldehyde from acrolein reaction product and/or polyethylenimine. The radio-opaque additive is an iodine polymer.

ABEX UPTX: 20051019

ADMINISTRATION - The hydrogel composition is applied by an injection device, infusion device, an applicator or plastic syringe (Claimed). No dosage given.

EXAMPLE - Propylene glycol (1.4 g) and a 20% aqueous solution (3 g) of Pluronic F88 (RTM; a block copolymer of ethylene oxide and propylene oxide) were added to a 25% water solution (8.6 g) of Kollidon K90 (RTM; polyvinylpyrrolidone). To that solution, a 3% aqueous solution (5 g) of **chitosan** neutralized with pyrrolidone **carboxylic** acid were added. The mixture was stirred for a few minutes and transferred into plastic syringes for cavity applications.

L150 ANSWER 2 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2005-603255** [62] WPIX
CR 1998-286610 [25]; 2004-118078 [12]; 2005-121248 [13]; 2005-372235 [38]; 2005-417021 [42]; 2005-424463 [43]; 2005-603254 [62]
DNN N2005-494765 DNC C2005-181539
TI Biological stent for the treatment of vascular atherosclerosis, includes body comprising crosslinked material having first degree of crosslink not less than the second degree of crosslink.
DC A96 B05 D21 D22 P32
IN CHEN, M; SUNG, H; TU, H
PA (CHEN-I) CHEN M; (SUNG-I) SUNG H; (TUHH-I) TU H
CYC 1
PI US 2005163821 A1 20050728 (200562)* 56 A61F002-00
ADT US 2005163821 A1 CIP of US 2002-211656 20020802, CIP of US 2003-610391 20030630, CIP of US 2004-916170 20040811, CIP of US 2004-24101 20041228, US 2005-906239 20050210
FDT US 2005163821 A1 CIP of US 6624138
PRAI US 2005-906239 20050210; US 2002-211656 20020802; US 2003-610391 20030630; US 2004-916170 20040811; US 2004-24101 20041228
IC ICM A61F002-00
AB US2005163821 A UPAB: 20050928
NOVELTY - A biological stent (41H) comprises a luminal surface portion

with a second degree of crosslink, an outer surface portion with a first degree of crosslink, and a body between the luminal and outer surface portions. The body comprises a crosslinked material having first degree of crosslink not less than the second degree of crosslink.

ACTIVITY - Vasotropic; Antiarteriosclerotic.

MECHANISM OF ACTION - None given.

USE - For the treatment of vascular atherosclerosis placing a biodegradable stent proximal to atherosclerosis, releasing bioactive agent; and treating vascular atherosclerosis distal to stent (claimed).

ADVANTAGE - The biological stent is biodegradable after serving its purpose, and has biocompatible breakdown products. It has also physical properties sufficient to perform its mechanical function. It has also sufficient longitudinal flexibility to facilitate insertion, and can deliver drugs locally to prevent restenosis.

DESCRIPTION OF DRAWING(S) - The figure shows an interlocking open-ring biodegradable stent of the invention.

Stent 41H

Member base 49

Ring elements 50A-B

Ends 53A-B

Dwg.18/21

FS CPI GMPI

FA AB; GI; DCN

MC CPI: A12-V03D; B04-C02B; B04-C02E; B04-C02E3; B04-C03; B04-H19; B04-N02; B05-A03B; B06-A02; B06-D18; B07-A04; B10-A20; B11-C04; B14-F02; B14-F07; D08-B; D09-C01; D09-C04

TECH UPTX: 20050928

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Component: The crosslinked material is a biodegradable material from collagen, gelatin, elastin, **chitosan**, nitrogen-, oxygen-, carboxylmethyl **chitosan** (**NOCC**), low molecular weight (MW) **chitosan**, fibrin glue, biological sealant, **chitosan** -alginate complex, and/or **chitosan**-glycerol complex. It is crosslinked with a crosslinking material from genipin, its analog and/or derivatives, aglycon geniposidic acid, epoxy compounds, dialdehyde starch, glutaraldehyde, formaldehyde, dimethyl suberimidate, carbodiimides, succinimidyls, diisocyanates, acyl azide, and/or reuterin. The stent is sized and configured being a spiral or helical shape, a tubular mesh shape or a non-tubular shape prior being loaded in a delivery apparatus. The stent further comprises at least one bioactive agent.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Component: The bioactive agent is analgesics or antipyretics, antiasthamatics, **antibiotics** , antidepressants, antidiabetics, antifungal agents, antihypertensive agents, **anti-inflammatories**, antineoplastics, antianxiety agents, immunosuppressive agents, antimigraine agents, sedatives or hypnotics, antipsychotic agents, antimanic agents, antiarrhythmics, antiarthritic agents, antigout agents, anticoagulants, thrombolytic agents, antifibrinolytic agents, antiplatelet agents and antibacterial agents, antiviral agents, antimicrobials, and/or anti-infectives. It is conjugated to a targeting moiety from porphyrin or motexafin lutetium or a non-porphyrin drug facilitator.

TECHNOLOGY FOCUS - POLYMERS - Preferred Component: The biodegradable material can also be polylactic acid, polyglycolic acid, poly(D, L-lactide-co-glycolide), polycaprolactone, poly(amides), poly(ester amides), polyhydroxy acids, polyalkanoates, polyanhydrides, polyphosphazenes, polyetheresters, polyesteramides, polyesters, polyorthoesters, and/or their co-polymers.

L150 ANSWER 3 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2005-603254** [62] WPIX
CR 1998-286610 [25]; 2004-118078 [12]; 2005-121248 [13]; 2005-372235 [38]; 2005-417021 [42]; 2005-424463 [43]; 2005-580451 [59]; 2005-603255 [62]
DNN N2005-494764 DNC C2005-181538
TI Medical device, useful for delivering biological material to target tissues, comprises an apparatus having a surface, a bioactive agent and a biological material (comprising cross-linked bioactive agent) loaded onto portion of surface.
DC A96 B05 B07 D16 D22 P32
IN CHEN, M; LIANG, H; SUNG, H; TU, H
PA (CHEN-I) CHEN M; (LIAN-I) LIANG H; (SUNG-I) SUNG H; (TUHH-I) TU H
CYC 1
PI US 2005163818 A1 20050728 (200562)* 23 A61F002-00
ADT US 2005163818 A1 Provisional US 1996-30701P 19961105, CIP of WO 1997-US20113 19971104, CIP of US 2001-297808 20010927, CIP of US 2002-211656 20020802, US 2003-610391 20030630
FDT US 2005163818 A1 CIP of US 6608040, CIP of US 6624138
PRAI US 1996-30701P 19961105; WO 1997-US20113 19971104; US 2001-297808 20010927; US 2002-211656 20020802; US 2003-610391 20030630
IC ICM A61F002-00
AB US2005163818 A UPAB: 20050928
NOVELTY - Medical device (I) comprises:
(a) an apparatus having a surface;
(b) a bioactive agent; and
(c) a biological material comprising the bioactive agent that is cross-linked with a cross-linking agent loaded onto at least a portion of the surface of (I).
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) a medical device being loaded with biological material being cross-linked with a cross-linking agent and a bioactive agent; and
(2) a method for treating a target tissue of a patient comprising: cross-linking a biological material with a cross-linking agent; mixing the bioactive agent with the biological material; and delivering the biological material to the target tissue and releasing the bioactive agent for treating the target tissue.
USE - (I) is useful for delivering the biological material to the target tissue and releasing the bioactive agent for treating the target tissue that comprises vulnerable plaque or atherosclerotic plaque (where the vulnerable plaque is the atherosclerotic plaque that is vulnerably prone to rupture) and the target tissue is tumor, cancer, brain tissue, vascular vessel or orthopedic tissue; preferably lymphatic vessel, gastrointestinal tract, hepatic duct, bile duct, pancreatic duct, urinary tract, ureter, urethra or reproductive tract (claimed).
ADVANTAGE - The biological material is biodegradable or bioabsorbable for slow-release of the bioactive agent (claimed).
Dwg.0/6
FS CPI GMPI
FA AB; DCN
MC CPI: A12-V00V; B01-B02; B02-D; B04-A10; B04-C02B; B04-C02E; **B04-C02E3**; B04-E01; B04-F01; B04-H06; B04-N02; B04-N02A; B06-H; B07-A02B; B09-B; B10-A12C; B10-A15; B10-A20; B10-C04A; B10-C04B; B10-C04E; B10-D01; B11-C04; D09-C01
TECH UPTX: 20050928
TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Components: The biological material is a solidifiable substrate, where (I) further comprises a step of solidifying the solidifiable substrate. The cross-linking agent is genipin, its analog and/or its derivatives; or formaldehyde, glutaraldehyde, dialdehyde starch, glyceraldehydes, cyanamide, diimides,

diisocyanates, dimethyl adipimidate, carbodiimide and/or epoxy compound. The apparatus is a stent or a non-stent implant (preferably annuloplasty rings, heart valve prostheses, venous valve bioprostheses, orthopedic implants, dental implants, ophthalmology implants, cardiovascular implants or cerebral implants; or a percutaneous device (a catheter, a wire, a cannula or an endoscopic instrument)). The biological material is: collagen, gelatin, elastin, **chitosan, N, O, carboxylmethyl chitosan**. The biological material is solidifiable from a phase (solution, paste, gel, suspension, colloid or plasma). The bioactive agent is: analgesics or antipyretics, antiasthmatics, **antibiotics**, antidepressants, antidiabetics, antifungal agents, antihypertensive agents, **anti-inflammatories**, antineoplastics, antianxiety agents, immunosuppressive agents, antimigraine agents, sedatives or hypnotics, antipsychotic agents, antimanic agents, antiarhythmics, antiarthritic agents, antigout agents, anticoagulants, thrombolytic agents, antifibrinolytic agents, antiplatelet agents and antibacterial agents, antiviral agents, antimicrobials or anti-infectives (preferably actinomycin D, paclitaxel, vincristin, methotrexate, angiopeptin, batimastat, halofuiginone, sirolimus, tacrolimus, everolimus, tranilast, dexamethasone, mycophenolic acid, lovastatin, thromboxane A2 synthetase inhibitors, eicosapentanoic acid, ciprostene, trapidil, angiotensin convening enzyme inhibitors, heparin, allicin, ginseng extract, flavone, ginkgo biloba extract, glycyrrhetinic acid, or proanthocyanides). The bioactive agent comprises biological cells (endothelial cells), genes or a growth factor (vascular endothelial growth factor, transforming growth factor-beta, insulin-like growth factor, platelet derived growth factor and/or fibroblast growth factor). The biological material is sized and configured as a medical device.

Preferred Method: The method for treating a target tissue further comprises the step of chemically linking the bioactive agent with the biological material through a cross-linker before the solidifying step, where the bioactive agent comprises at least a cross-linkable functional group.

ABEX UPTX: 20050928

ADMINISTRATION - Administration of (I) is via implantation.

EXAMPLE - **Chitosan** powder was dissolved in **acetic** acid at about pH 4. The **deacetylation** degree of the **chitosan** used was approximately 85%. The **chitosan** solution was adjusted to a pH of approximately 5.5 with sodium hydroxide. Drugs of interest were added into the **chitosan** solution. While loading the drug-containing **chitosan** onto the stent, the environment was adjusted to pH 7 with sodium hydroxide to solidify the **chitosan** onto the stent and it was further treated with a cross-linking agent (e.g. genipin) to enhance the biodurability and biocompatibility.

L150 ANSWER 4 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-458504 [46] WPIX
DNC C2005-139340
TI Use of a topical composition comprising at least one compound of **hydroxycarboxylic** acids, N-**acyl**-aldosamines, N-**acylamino** acids and related compounds to enlarge mucocutaneous or cutaneous organs and sites.
DC B05 D21 E19
IN VAN SCOTT, E J; YU, R J
PA (VSCO-I) VAN SCOTT E J; (YURJ-I) YU R J
CYC 108
PI WO 2005055947 A2 20050623 (200546)* EN 52 A61K000-00 <--
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT

KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

US 2005171194 A1 20050804 (200552) A61K031-366 <--

ADT WO 2005055947 A2 WO 2004-US41009 20041208; US 2005171194 A1 Provisional US 2003-527307P 20031208, Provisional US 2004-570895P 20040514, US 2004-6822 20041208

PRAI US 2004-570895P 20040514; US 2003-527307P 20031208; US 2004-6822 20041208

IC ICM **A61K000-00; A61K031-366**
ICS **A61K031-19**

AB WO2005055947 A UPAB: 20050720
NOVELTY - Enlarging mucocutaneous or cutaneous organs and sites comprises topically applying a composition (A) comprising at least one compound of **hydroxycarboxylic** acids, N-**acyl**-aldosamines, N-**acylamino** acids and related compounds for a period of time to the mucocutaneous or cutaneous organ or site.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of preventing or ameliorating breast tumors comprising topically applying a composition, which comprises an antioxidant (citric acid, isocitric acid, malic acid, tartaric acid, pantolactone, isoascorbic acid, polyhydroxy acids, aldobionic acids or N-**acetyl**-cysteine) to the breast.

ACTIVITY - **Antiinflammatory**; Analgesic; Anesthetic; Antibacterial; Virucide; Antifungal; Cytostatic; Dermatological; Endocrine-Gen.; Antiseborrheic; Antipruritic.

MECHANISM OF ACTION - Histamine antagonist.

USE - (A) is useful to: plump, pout, enhance or enlarge the lips and eyelids; plump, enhance or enlarge the breast; plump, enhance, enlarge and/or elongate the penis (claimed). The ability of (A) to enlarge or plump breast was tested in a female subject. The results showed that the breast had increased in plumpness and firmness after 3 months.

ADVANTAGE - (A) has synergistic effect.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: B01-C05; B02-Z; B03-A; B05-A03A4; B07-A02; B07-D04A; B10-B02B; B10-C02; B10-C03; B10-C04B; B10-C04D; B10-E02; B12-M02B; B12-M07; B12-M12B; B14-A01; B14-A02; B14-A04; B14-C01; B14-C03; B14-C08; B14-D01; B14-H01E; B14-L09; B14-N17; B14-R05; B14-S08; B14-S09; D08-B09A; D08-B11; E07-A02B; E07-A02F; E07-D04A; E10-B02B; E10-C02A; E10-C02F; E10-C03; E10-C04B; E10-C04D4; E10-C04D5; E10-D01D; E10-E02F1; E35-C

TECH UPTX: 20050720
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The **hydroxycarboxylic** acid is alpha-hydroxyacids, beta-hydroxyacids, polyhydroxy acids and/or aldobionic acids. The **hydroxycarboxylic** acid is present as a free acid, salt, amide, ester and/or lactone. The alpha-hydroxyacid is alkyl alpha hydroxyacids, aralkyl alphahydroxyacids and/or **polycarboxy** alpha hydroxyacids. The polyhydroxy acid (PHAs) is an organic **carboxylic** acids having multiple hydroxyl groups in addition to the alphahydroxyl group, and where the polyhydroxy acid is present in the lactone form. The polyhydroxy acid is derived from carbohydrates and is aldonic acid, aldaric acid or alduronic acid. There are 9 **hydroxycarboxylic** acid compounds (B1) e.g. acid compounds of formulae R1R2C(OH)COOH (I), R1R2C(OH)COOH (II) and R1R2C(OH)COOH (III).

The N-**acyl**-aldosamine (C1) of formula R1-(CHOH)m-CH(NHCOR2)-(CHOH)n-R3. The N-**acylamino** acid (D1) is of formula R1-CH(NHCOR2)-(CH2)n-COR3. The aldonic acid (E1) is of formula R(CHOH)nCHOHCOOH. The aldaric acid (F1) is of formula HOOC(CHOH)nCHOHCOOH. The alduronic acid (G1) is of formula HOOC(CHOH)nCHOHCHO. The aldobionic acid (H1) is of formula H(CHOH)m(CHOR)(CHOH)nCOOH. In formula (I),
R1, R2 = H or alkyl (where the alkyl alpha hydroxyacid (AHA) can exist as free acid, salt or partial salt with organic or inorganic alkali, amide, ester, lactone, stereoisomers as D, L and DL or R, S and RS forms when R1 and R2 are not identical, and where the alkyl groups are non-aromatic radicals such as methyl, ethyl, propyl, isopropyl, butyl, pentyl, octyl, lauryl or stearyl).
In formula (II),
R1, R2 = H, aryl or aralkyl group (where the aralkyl AHAs are present as a free acid, salt or partial salt with organic or inorganic alkali, amide, ester, lactone, stereoisomers as D, L and DL or R, S and RS forms when R1 and R2 are not identical, and where the hydroxyl group is attached to a non-aromatic alpha carbon atom).
In formula (III),
R1, R2 = H, COOH, CH2COOH or CHOHCOOH (where the **polycarboxy** AHA are present as a free acid, salt or partial salt with organic or inorganic alkali, amide, ester, lactone, stereoisomers as D, L and DL or R, S and RS forms when R1 and R2 are not identical).
In formula (C1),
R1 = H, COOH, alkyl, alkoxyl, aralkyl and 1-19C aryl group;
R2 = alkyl, aralkyl or 1-19C group;
m, n = 0-19;
R3 = CHO, CONH2 or COOR4; and
R4 = H, an alkyl, aralkyl or 1-9C aryl group (where the hydrogen attached to a carbon atom is optionally substituted by I, F, Cl, Br or alkyl, alkoxyl, aralkyl or aryl group having 1 to 19 carbon atoms, and the N-**Acyl**-aldosamine is present as a saturated or unsaturated, stereoisomeric or non-stereoisomeric, straight or branched chain or cyclic form).
In formula (D1),
R1 = H, an alkyl, aralkyl or 1-18C aryl;
R2 = alkyl, aralkyl or 1-18C aryl;
n = 0-5;
R3 = OH, NH2 OR3; and
R3 = alkyl, aralkyl or 1-9C aryl (in addition R1 optionally has OH, SH, SCH3, COOH, NH2, CONH2, NHCONH2, NHC(=NH)NH2, imidazole, pyrrolidine or other heterocyclic group, and the hydrogen attached to a carbon atom optionally substituted by I, F, Cl, Br, OH or 1-9C alkoxyl).
In formula (E1),
R = H or alkyl group; and
n = 1-6 (where the aldonic acid is present as a free acid, salt or partial salt with organic or inorganic alkali, amide, ester, lactone, and as a stereoisomer as D, L and DL or R, S and RS forms).
In formula (F1) and (G1),
n = 1-4 (where the aldaric acid and alduronic acid is present as a free acid, salt or partial salt with organic or inorganic alkali, amide, ester, lactone, or as a stereoisomer as D, L and DL or R, S and RS forms).
In formula (H1),
m, n = 0-7; and
R = monosaccharide (where the aldobionic acid is present as a free acid, salt or partial salt with organic or inorganic alkali, amide, ester, lactone, or as a stereoisomer as D, L and DL or R, S and RS forms).
The aldonic acid is 2,3-dihydroxypropanoic acid (glyceric acid); 2,3,4-trihydroxybutanoic acids (stereoisomers; erythronic acid and erythronolactone, threonic acid and threonolactone); 2,3,4,5-

tetrahydroxypentanoic acids (stereoisomers; ribonic acid and ribonolactone, arabinoic acid and arabinolactone, xylonic acid and xylonolactone, lyxonic acid and lyxonolactone); 2,3,4,5,6-pentahydroxyhexanoic acids (stereoisomers; allonic acid and allonolactone, altronic acid and altronolactone, gluconic acid and gluconolactone, mannoic acid and mannolactone, gulonic acid and gulonolactone, idonic acid and idonolactone, galactonic acid and galactonolactone, talonic acid and talonolactone); and 2,3,4,5,6,7-hexahydroxyheptanoic acids (stereoisomers; alloheptonic acid and alloheptonolactone, altroheptonic acid and altroheptonolactone, glucoheptonic acid and glucoheptonolactone, mannoheptonic acid and mannoheptonolactone, guloheptonic acid and guloheptonolactone, idoheptonic acid and idoheptonolactone, galactoheptonic acid and galactoheptonolactone, taloheptonic acid and taloheptonolactone). The aldaric acid is 2,3-dihydroxybutane-1,4-dioic acids (stereoisomers; erythraric acid and threaric acid, also known as tartaric acid); 2,3,4-trihydroxypentane-1,5-dioic acids (stereoisomers; ribaric acid and ribarolactone, arabaric acid and arabarolactone, xylaric acid and xylarolactone, lyxaric acid and lyxarolactone); 2,3,4,5-tetrahydroxyhexane-1,6-dioic acids (stereoisomers; allaric acid and allarolactone, altraric acid and altrarolactone, glucaric acid and glucarolactone, mannaric acid and mannarolactone, gularic acid and gularolactone, idaric acid and idarolactone, galactaric acid and galactarolactone, talaric acid and talarolactone); 2,3,4,5,6-pentahydroxyheptane-1,7-dioic acids (stereoisomers; alloheptaric acid and alloheptarolactone, altroheptaric acid and altroheptarolactone, glucoheptaric acid and glucoheptarolactone, mannoheptaric acid and mannoheptarolactone, guloheptaric acid and guloheptarolactone, idoheptaric acid and idoheptarolactone, galactoheptaric acid and galactoheptarolactone, taloheptaric acid and taloheptarolactone). The alduronic acid is erythruronic acid and threuronic acid; riburonic acid and riburonolactone; araburonic acid and araburonolactone; xyluronic acid and xyluronolactone; lyxuronic acid and lyxuronolactone; alluronic acid and alluronolactone; altruronic acid and altruronolactone; glucuronic acid and glucuronolactone; mannuronic acid and mannuronolactone; guluronic acid and guluronolactone; iduronic acid and iduronolactone; galacturonic acid and galacturonolactone; taluronic acid and taluronolactone; allohepturonic acid and allohepturonolactone; altrohepturonic acid and altrohepturonolactone; glucohepturonic acid and glucohepturonolactone; mannohepturonic acid and mannohepturonolactone; gulohepturonic acid and gulohepturonolactone; idohepturonic acid and idohepturonolactone; galactohepturonic acid and galactohepturonolactone; and talohepturonic acid and talohepturonolactone. The aldobionic acid is lactobionic acid and lactobionolactone from lactose, isolactobionic acid and isolactobionolactone from isolactose, maltobionic acid and maltobionolactone from maltose, isomaltobionic acid and isomaltobionolactone from isomaltose, cellobionic acid and cellobionolactone from cellobiose, gentiobionic acid and gentiobionolactone from gentiobiose, kojibionic acid and kojibionolactone from kojibiose, laminaribionic acid and laminaribionolactone from laminaribiose, melibionic acid and melibionolactone from melibiose, nigerobionic acid and nigerobionolactone from nigerose, rutinobionic acid and rutinobionolactone from rutinose, sophorobionic acid and sophorobionolactone from sophorose. The hydroxyacid is a hydroxyacid derivatives comprised of an ester form or an O-**acetyl** form of the hydroxyacid. The hydroxyacid derivative is glycolic acid methyl ester and ethyl ester, O-**acetyl**-mandelic acid and O-**acetyl**-benzilic acid. The hydroxyacid is a related **hydroxycarboxylic** acid selected from alpha ketoacids and miscellaneous hydroxyacids. The miscellaneous hydroxyacid is agaricic acid, aleuritic acid, citramalic acid, glucosaminic acid, galactosaminic acid, 2-keto-gulonic acid and

2-ketogulonolactone, mannosaminic acid, mevalonic acid and mevalonolactone, pantoic acid and pantolactone, quinic acid (1,3,4,5-**tetrahydroxycyclohexanecarboxylic** acid), piscidic acid (4-hydroxybenzyltartaric acid), isoascorbic acid (D-erythro-hex-2-enonic acidr-lactone), 2-hexulosonic acids (isomers; arabino-2-hexulosonicacid, xylo-2-hexulosonic acid, ribo-2-hexulosonic acid, lyxo-2-hexulosonic acid), 5- hexulosonic acids (isomers; arabino-5-hexulosonic acid, xylo-5-hexulosonic acid, ribo-5-hexulosonic acid and/or lyxo-5-hexulosonic acid). The related compounds are related N-**acetylamino** acids such as N-**acetyl**-beta-alanine, N-**acetyl**-gamma-aminobutanoic acid, N-**acetyl**-beta-aminoisobutanoic acid, N-**acetyl**-citrulline, N-**acetyl**-dopa (N-**acetyl**-3,4-dihydroxyphenylalanine), N-**acetyl**-homocysteine, N-**acetylhomoserine**, N-**acetyl**-ornithine, N-**acetyl**-phenylglycine, N-**acetyl**-4-hydroxyphenylglycine or **N**,**O**-**diacetyl**-4-hydroxyphenylglycine. The N-**acylamino** acid is an N-propanoyllamino acid such as N-propanoyl-alanine, N-propanoyl-arginine, N-propanoyl-asparagine, N-propanoyl-aspartic acid, N-propanoyl-cysteine, N-propanoyl-glycine, N-propanoyl-glutamic acid, N-propanoyl-glutamine, N-propanoyl- histidine, N-propanoyl-isoleucine, N-propanoylleucine, N-propanoyl-lysine, N-propanoyl-methionine, N-propanoyl-phenylalanine, N-propanoyl-proline, N-propanoyl-serine, N-propanoyl-threonine, N-propanoyltryptophan, N-propanoyl-tyrosine or N-propanoyl-valine. The related compounds are related N-propanoylamino acids such as N-propanoyl-beta-alanine, N-propanoyl-gamma-aminobutanoic acid, N-propanoyl-beta-aminoisobutanoic acid, N-propanoyl-citrulline, N-propanoyl-dopa (N-propanoyl-3,4-dihydroxyphenylalanine), N-propanoyl-homocysteine, N-propanoyl-homoserine, N-propanoyl-ornithine, N-propanoyl-phenylglycine, N-propanoyl-4-hydroxyphenylglycine or **N**,**O**-dipropanoyl-4-hydroxyphenylglycine. The aldonic acid is about 0.01-99.9 (preferably 1-25) wt.% of (A). The effective period of time is for at least two weeks (preferably at least six months). (A) further comprises a cosmetic, pharmaceutical or other topical agent. The cosmetic, pharmaceutical or other topical agent is of agents that improve or eradicate age spots, keratoses and wrinkles; local analgesics and anesthetics; antiacne agents; antibacterials; antiyeast agents; antifungal agents; antiviral agents; antidermatitis agents; antihistamine agents; antipruritic agents; **antiinflammatory** agents; antipsoriatic agents; antiseborrheic agents; antiaging and antiwrinkle agents; sunblock and sunscreen agents; skin lightening agents; depigmenting agents; vitamins; corticosteroids; tanning agents; humectants; estrogens; androgens; hormones or retinoids. The cosmetic, pharmaceutical or other topical agent is aclovate, acyclovir, **acetylsalicylic** acid, adapalene, albuterol, aluminum **acetate**, aluminum chloride, aluminum hydroxide, aluminum chlorohydroxide, amantadine, aminacrine, aminobenzoic acid (PABA), aminocaproic acid, **aminosalicylic** acid, amitriptyline, anthralin, ascorbic acid, ascoryl palimate, atropine, azelaic acid, bacitracin, bemegride, beclomethasone dipropionate, benzophenone, benzoyl peroxide, betamethasone dipropionate, betamethasone valerate, brompheniramine, bupivacaine, butoconazole, calcipotriene, camphor, capsaicin, carbamide peroxide, **chitosan**, chlorhexidine, chloroxylenol, chlorpheniramine, ciclopirox, clemastine, clindamycin, clioquinol, clobetasol propionate, clotrimazole, coal tar, cromolyn, crotamiton, cycloserine, dehydroepiandrosterone, desoximetasone, dexamethasone, diphenhydramine, doxypin, doxylamine, dyclonine, econazole, erythromycin, estradiol, estrone, ethinyl estradiol, fluocinonide, fluocinolone **acetonide**, 5-fluorouracil, griseofulvin, guaifenesin, haloprogin, hexylresorcinol, homosalate, hydrocortisone, hydrocortisone 21 -**acetate**, hydrocortisone 17-valerate,

hydrocortisone 17-butyrate, hydrogen peroxide, hydroquinone, hydroqumone monoether, hydroxyzine, ibuprofen, ichthammol, imiquimod, indomethacin, ketoconazole, ketoprofen, kojic acid, lidocaine, meclizine, meclocycline, menthol, mepivacaine, methyl nicotinate, metronidazole, miconazole, minocycline, minoxidil, monobenzone, mupirocin, naftifine, naproxen, neomycin, nystatin, octyl methoxycinnamate, octyl salicylate, oxybenzone, oxiconazole, oxymetazoline, padimate O, permethrin, pheniramine, phenol, phenylephrine, phenylpropanolamine, piperonyl butoxide, podophyllin, podofilox, povidone iodine, pramoxine, prilocaine, procaine, promethazine propionate, propranolol, pseudoephedrine, pyrethrin, pyrilamine, resorcinol, retinal, 13-cis retinoic acid, retinoic acid, retinol, retinyl **acetate**, retinyl palmitate, selenium sulfide, shale tar, sulconazole, sulfur, sulfadiazine, tazarotene, testosterone, terbinafine, terconazole, tetracaine, tetracycline, tetrahydrozoline, thymol, tioconazole, tolnaftate, triamcinolone **diacetate**, triamcinolone **acetonide**, triamcinolone **hexacetonide**, triclosan, triprolidine, undecylenic acid, urea, vitamin E **acetate**, wood tar or zinc pyrithione.

ABEX UPTX: 20050720

SPECIFIC COMPOUNDS - The use of 20 compounds is specifically claimed as (D1) e.g. N-**acetyl**-alanine, N-**acetylarginine**, N-**acetyl**-asparagine, N-**acetyl**-aspartic acid, N-**acetyl**-cysteine, N-**acetylglycine**, N-**acetyl**-glutamic acid, N-**acetyl**-glutamine, N-**acetyl**-histidine and N-**acetylisoleucine**. The use of 108 compounds is specifically claimed as (C1) e.g. N-**acetyl**-glycerosamine, **Nacetyl**-erythrosamine, N-**acetyl**-threosamine, N-**acetyl**-ribosamine, N-**Acetylarabinosamine**, N-**Acetyl**-xylosamine, N-**Acetyl**-lyxosamine, N-**Acetyl**-allosamine, N-**Acetyl**-altrosamine, N-**Acetyl**-glucosamine, N-**Acetyl**-mannosamine, N-**Acetylgulosamine**, N-**Acetyl**-idosamine, N-**Acetyl**-galactosamine and N-**Acetyl**-talosamine. The use of 32 compounds is specifically claimed as (B1) e.g. 2-hydroxyethanoic acid (glycolic acid); 2-hydroxypropanoic acid (lactic acid); 2-methyl-2-hydroxypropanoic acid (methyllactic acid); 2-hydroxybutanoic acid; 2-hydroxypentanoic acid; 2,3-dihydroxybutane-1,4-dioic acid (tartaric acid); 2-ketoethanoic acid (glyoxylic acid); 2-ketopropanoic acid (pyruvic acid) and 2-phenyl-2-ketoethanoic acid (benzoylformic acid).

ADMINISTRATION - Administration of (A) is topical (claimed).

L150 ANSWER 5 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-384670 [39] WPIX
DNC C2005-119027
TI Composition useful e.g., for treating a dental dry socket, and in wound dressings, comprises a hydrogel of a non-acidic poly(n-vinyllactam), a water-soluble multifunctional amine-containing polymer and/or a **chitosan** derivative.
DC A18 A28 A96 B07 D21
IN HORNG, L L
PA (HORN-I) HORNG L L
CYC 108
PI US 2005112151 A1 20050526 (200539)* 10 A61K007-06 <--
WO 2005055924 A2 20050623 (200541) EN A61K000-00 <--
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ

OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

ADT US 2005112151 A1 US 2003-707102 20031120; WO 2005055924 A2 WO 2004-US28292 20040831

PRAI US 2003-707102 20031120

IC ICM **A61K000-00; A61K007-06**
ICS **A61K007-00; A61K007-11**

AB US2005112151 A UPAB: 20050621

NOVELTY - A composition (A) comprises a hydrogel formed by a mixture of two or more of (1) a non-acidic poly(n-vinyl lactam) with a k value of at least 30; (2) a water soluble multifunctional amine-containing polymer or its mixtures; and (3) a **chitosan** derivative or its mixtures.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a composition (A) comprising (1) with a K value of at least 30 and (2) in a weight ratio of about 8.75-1;

(2) a composition (B) comprising a hydrogel formed by a mixture of (1) and (2);

(3) a composition (C) formed by combining an aqueous solution (a) comprising non-acidic polyvinylpyrrolidone, lidocaine hydrogen chloride and glutaric dialdehyde in a weight ratio, respectively, of about 69.7 to 12 to 1 with an aqueous solution (b) comprising polyethyleneimine, glycerin and polyvinylpyrrolidone/dimethylaminoethyl-methacrylate copolymer in a weight ratio, respectively, of about 1.87 to 1.25 to 1, where the total weight of aqueous solution of each of (a) and (b) are in the range of about 0.9 to 1 respectively;

(4) a composition formed by combining an aqueous solution (c) comprising non-acidic polyvinylpyrrolidone, polyethylene glycol, benzocaine and glutaric dialdehyde in a weight ratio respectively of about 56 to 34 to 14 to 1 with an aqueous solution (d) comprising polyethylene glycol, glycerin, benzocaine, polyvinyl pyrrolidone/dimethylaminoethyl-methacrylate copolymer and polyethyleneimine in the weight ratio respectively of about 5.5 to 2.5 to 2.5 to 2 to 1, where the total weight of each aqueous solution (c) and (d) is in the range of about 1 to 1;

(5) a composition (D) comprising a hydrogel formed by a mixture of (1) with a K value of at least 30 and/or (3);

(6) a composition (E) comprising a hydrogel formed by the mixture of (2) and/or (3);

(7) a dental anesthetic application (F) comprising (B) further including an anesthetic (lidocaine, benzocaine and Eugenol (about 1-30 weight%), moisturizers and plasticizers (about 0-50 weight%) and preservatives (about 0-4 weight%) and where the weight ratio of (1) to (2) is about 80/1 to 2/1;

(8) a cosmetic face mask comprising (A);

(9) a kit for a cosmetic gel (A) and a separate portion containing cosmetic agents (hydrating agents, fragrances and skin nutrients) with instructions to the order of addition to and the amount of water in which to form a hydrogel, application and removal directions; and

(10) a hydrogel in sheet or roll form comprising (A) and further including a releasable backing sheet.

USE - The compositions (A-E) are useful to treat a dental dry socket (claimed). The compositions (A-E) are useful as wound dressings, burn dressings, drug delivery systems, cosmetic masks, conductive electrodes, prostheses and wraps. The hydrogel are useful as carriers for wide range of pharmaceutically acceptable and releasable biologically active agents having curative or therapeutic value for human or non-human animals.

ADVANTAGE - The compositions supply the patients with a less painful alternative to the standard gauze packing treatment. The ring opening of (1) of the compositions is omitted. The compositions are stable and economical.

Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: A04-D05; A12-S; A12-V02B; A12-V03A; A12-V04C; B04-C03; B05-A03B; B06-D09; B06-E05; B07-A02A; B07-D09; B10-A05; B10-B03B; B10-C03; B10-E02; B10-E04A; B14-A01; B14-A02; B14-A04; B14-C01; B14-C03; B14-C08; B14-F01; B14-F02; B14-F02C; B14-H01; B14-J02A; B14-J05D; B14-N06; B14-R01; D08-B09A; D09-C04B; D09-C06
TECH UPTX: 20050621

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preparation: (A) is prepared by reaction of (a) an aqueous solution comprising non-acidic polyvinylpyrrolidone and glycerin in a weight ratio of about 1.5 to 1 with (b) an aqueous solution comprising **carboxymethyl chitosan**, glycerin and polyethyleneimine in a weight ratio of about 6.6 to 156 to 1 respectively, where the total weight of aqueous solutions (a) and (b) are in the range of about 1 to 1.

Preferred Components: (1) is homopolymers, coplymers and terpolymers of N-vinyl lactam. The copolymers and terpolymers of (1) are N-vinyl lactam monomer copolymerized with monomers containing a vinyl functional group. The vinyl containing monomers are acrylates, hydroxyalkylacrylates, methacrylates, acrylic acid, methacrylic acid, acrylamindes, vinylpyrrolidone, vinylcaprolactam or dimethylaminoethyl methacrylate terpolymers. The homopolymer of (1) is vinylpyrrolidone. (2) is polyethyleneimine, amine terminated polyethylene oxide polymers, amine terminated polyethylene/polypropylene oxide polymers, polymers and copolymers of dimethyl amino ethyl methacrylate or vinyl pyrrolidone. (3) is a biocompatible salt such as a **chitosan** reacted with a reactant (pyrrolidone **carboxylic** acid, glutamic acid or an **acetate**); preferably **N,O-carboxymethyl chitosan** or **N,O-carboxybutyl chitosan**. (A) further includes biologically active and pharmaceutically acceptable substances having curative or therapeutic value; an electrolyte (sodium chloride, potassium chloride or magnesium **acetate**), where the hydrogel is rendered electrically conductive; a skin-hydrating agent (water, sodium pyrrolidone **carboxylate**, lactic acid, hyaluronic acid or hydrolyzed collagen); enhancing agents (wetting agents, moisturizers, plasticizers, surfactants or dispersing agents; preferably glycerin, propylene glycol or polyethylene glycol); an electrolytic salt as an anti-osmotic agent (an alkali metal chloride or sodium bicarbonate); additives (polymer lattices, fillers, surfactants, pigments, dyes or fragrances). The biologically active materials are hypnotics, sedatives, tranquilizers, anti-convulsants, muscle relaxants, analgesics, antipyretic agents, **anti-inflammatory** agents, local anesthetics, antispasmodics, anti-ulcer agents, anti-virals, anti-bacterials, anti-fungals, sympathomimetic agents, cardiovascular agents or antitumor agents; preferably nitroglycerine, scopolamine, pilocarpine, ergotamine tartrate, phenylpropanolamine, theophylline, antimicrobials tetracycline, neomycin, oxytetracycline, triclosan, sodium cefazolin, silver sulfadiazine, methylsalicylate, salicylic acid, nicotinates, methyl nicotinate, chlorhexidine gluconate, menthol, capsicum, lidocaine or benzocaine. The weight ratio of poyvinylpyrrolidone to (2) is about 2/1 to 80/1. In the preparation of (C), the weight ratio of the aqueous solution comprising non-acidic polyvinylpyrrolidone, lidocaine hydrogen chloride and glutaric dialdehyde respectively, is about 68.2 to 16 to 1 and the weight ratio of aqueous solution comprising polyethyleneimine, glycerin and polyvinyl pyrrolidone/dimethylaminoethyl-methacrylate copolymer, respectively, is about 1.85 to 1.25 to 1, where the total weight of the aqueous solution in each of (a) and (b) are in the range of about 1 to 1 respectively. The weight ratio of the poly(N-vinyl lactam) to **chitosan** derivative is in the range of from about 2/1 to about 100/1. The composition (D) comprises about 1-30 wt.% of

pharmaceutically acceptable local anesthetic, about 0-50 wt.% of a moisturizer, about 0-50 wt.% of a plasticizer, about 0-4 wt.% of a preservative, were the weight ratio of (1) to (3) is about 80/1 to about 2/1. In (D), the poly(N-vinyl lactam) is polyvinylpyrrolidone and the weight ratio of polyvinylpyrrolidone to (3) is about 17.5/1. In (E), the weight ratio of (2) and (3) is in the range of 50/1 to 1/50. In (E), (2) is polyethyleneimine and (3) is **carboxymethyl chitosan** and the weight ratio of the amine to the **chitosan** derivative is about 1.2-1 (preferably 0.3 to 1 or 0.15-1). (E) further includes about 13 (preferably 47) wt.% of glycerin. In (F), the eugenol is about 2-20 wt.%, the moisturizers and plasticizers is about 5-25 wt.% and the preservatives is about 0.01-2 wt.% and where the weight ratio of (1) to (2) is about 30/1 to 5/1. The releasable backing layer provides protection of the hydrogel from gases, liquid, air and the selection of area to be treated. Preferred Method: In the treatment of dry socket, (A) is applied to the socket as a layer.

ABEX UPTX: 20050621

EXAMPLE - Nonacidic K60 PVP (79 g, 40 weight%) at pH 7 and glycerin (21 g) in aqueous solution was mixed with **carboxymethyl chitosan** (2 g), aqueous solution of glycerin (47 g), 50 weight% polyethyleneimine aqueous solution (0.6 g) and water (51 g) and a gel was formed in less than 5 minutes.

L150 ANSWER 6 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2005-372235** [38] WPIX
CR 1998-286610 [25]; 2004-118078 [12]; 2005-121248 [13]; 2005-417021 [42]; 2005-424463 [43]; 2005-580451 [59]; 2005-603254 [62]; 2005-603255 [62]
DNN N2005-301078 DNC C2005-115289
TI Crosslinked biodegradable stent/implant useful for treating target tissue e.g. vulnerable plaque, comprises at least one layer/zone of biological material crosslinked with crosslinking agent contains at least one bioactive agent.
DC A96 B07 D22 P32
IN CHEN, M; SUNG, H; TU, H; TU, P Y
PA (GPME-N) GP MEDICAL INC
CYC 108
PI WO 2005046519 A1 20050526 (200538)* EN 62 A61F002-02
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
ADT WO 2005046519 A1 WO 2004-US37217 20041105
PRAI US 2004-585775P 20040706; US 2003-518050P 20031107;
US 2004-547935P 20040226; US 2004-565438P 20040426;
US 2004-574501P 20040526; US 2004-610391 20040630
IC ICM A61F002-02
AB WO2005046519 A UPAB: 20050928
NOVELTY - A crosslinked biodegradable stent/implant (21) comprises at least one layer or zone (22A) of biological material (24). The biological material contains at least one bioactive agent and is crosslinked with crosslinking agent.

ACTIVITY - Antiarteriosclerotic. No suitable biodata given.

MECHANISM OF ACTION - None given.

USE - For treating a target tissue such as atherosclerosis plaque or vulnerable plaque (claimed).

ADVANTAGE - Crosslinking of a drug-containing biological material

with genipin enables the resulting material with less antigenicity or immunogenicity. The implant/stent exhibits many of desired characteristics important for optimal therapeutic function. The implant/stent provides controlled and sustained release of drug over an extended period of time.

DESCRIPTION OF DRAWING(S) - The figure shows biodegradable zone.

Stent 21

First zones 22A, 22B

Second zone 23

First biodegradable material 24

Portion of continuous circumference 25

Second biodegradable material 26

Dwg.9/18

FS CPI GMPI

FA AB; GI; DCN

MC CPI: A12-V02; B01-B02; B02-E; B02-S; B02-T; B04-B01B; B04-C02B; **B04-C02E3**; B04-H06; B04-H19; B04-N02; B05-B01G; B05-B01P; B06-H; B07-H; B09-B; B10-A04; B10-A17; B10-A20; B10-C03; B10-C04A; B10-D01; B11-C04A; B12-M10A4; B14-A01; B14-A02; B14-A04; B14-C01; B14-C02; B14-C03; B14-C09; B14-D10; B14-F01A; B14-F02B; B14-F02C; B14-F04; B14-F07; B14-F08; B14-H01; B14-J01B; B14-K01A; B14-S04; D09-C04

TECH UPTX: 20050616

TECHNOLOGY FOCUS - BIOLOGY - Preferred Biological Material: The biological material is selected from collagen, gelatin, elastin, **chitosan**, **N,O-carboxymethyl chitosan** (**NOCC**), fibrin glue, biological sealant and/or **chitosan** -alginate complex. The bioactive agent is ApoA-I Milano, recombinant ApoA-I Milano/phospholipid complexes, biological cells or epithelial progenitor cells or a growth factor. The growth factor is selected from vascular endothelial growth factor, transforming growth factor-beta, insulin-like growth factor, platelet derived growth factor, and/or fibroblast growth factor.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Agent: The bioactive agent is selected from analgesics/antipyretics (e.g. aspirin), antiasthamatics, **antibiotics**, antidepressants, antidiabetics, antifungal agents, antihypertensive agents, **anti-inflammatories**, antineoplastics (e.g. actinomycin D), antianxiety agents, immunosuppressive agents, antimigraine agents, sedatives/hypnotics, antipsychotic agents, antimanic agents, antiarrhythmics, antiarthritic agents, antigout agents, anticoagulants, thrombolytic agents, antifibrinolytic agents, antiplatelet agents and antibacterial agents, antiviral agents, antimorobials, and/or anti-infective or paclitaxel, methotrexate, angiopeptin, batimastat, halofuginone, sirolimus, tacrolimus, everolimus, ABT-578, tranilast, dexamethasone, mycophentanoic acid, lovastatin, thrombozane A2 synthetase inhibitors, eicosapentanoic acid, ciprostene, trapidil, angiotensin convening enzyme inhibitors, heparin, allicin, ginseng extract, ginsenoside Rg1, flavone, ginkgo biloba extract, glycyrrhetinic acid, lipostabil and/or proanthocyanides.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Crosslinking Agent: The biological material is crosslinked with crosslinking agent or reversible crosslinking agent (preferably poly(amides) or poly(ester amides)). The crosslinking agent is selected from aglycon geniposidic acid, epoxy compounds, dialdehyde starch, glutaraldehyde, formaldehyde, dimethyl suberimidate, carbodiimides, succinimidyls, diisocyanates, **acyl** azide, reuterin and/or genipin, its analog and/or its derivatives. The reversible crossliniking agent is selected from polyphenolic compounds, proanthocyanidin, epigallocatechin gallate, epicatechin, epigallocatechin and/or epicatechin gallate. The system is crosslinked by exposing the material to ultraviolet irradiation, dehydrothermal treatment,

tris(hydroxymethyl)phosphine, ascorbate-copper, glucose-lysine or photo-oxidizers.

TECHNOLOGY FOCUS - POLYMERS - Preferred Polymer: The layer or zone is made of biodegradable shape memory polymer.

L150 ANSWER 7 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2005-283506** [29] WPIX
DNN N2005-232449 DNC C2005-088048
TI Responsive polymeric system, useful e.g. as a sealant, a transient barrier for the prevention of post-surgical adhesions and in the field of gene therapy, comprises one or more silicon-containing reactive groups.
DC A96 B04 D16 P32
IN COHN, D; SOSNIK, A
PA (YISS) YISSUM RES DEV CO HEBREW UNIV JERUSALEM
CYC 1
PI US 2005069573 A1 20050331 (200529)* 19 A61F002-00
ADT US 2005069573 A1 US 2004-845476 20040512
PRAI IL 2003-155866 20030512
IC ICM A61F002-00
AB US2005069573 A UPAB: 20050506
NOVELTY - Responsive polymeric system (I) comprises one or more silicon-containing reactive groups (where (I) undergoes a hydrolysis-condensation reaction primarily at a body site in the presence of water and at body temperature, and as a result of the reaction, the molecular weight of (I) increases due to polymerization and/or cross linking, and the rheological and mechanical properties of (I) are changed).

USE - (I) is useful as a sealant, a coating and lubricant, a transient barrier for the prevention of post-surgical adhesions, a matrix for the unimodal or multimodal controlled release of biologically active agents and in the area of tissue engineering and the field of gene therapy (claimed).

ADVANTAGE - (I) is biodegradable or selectively biodegradable. (I) is biodegradable where the system disappears from the site after a predetermined time. (All claimed.)

Dwg.0/9
FS CPI GMPI
FA AB; DCN
MC CPI: A06-A00B; A06-A00E; A06-A00E3; A07-A01; A07-A03; A07-A04F; A12-R08; A12-V03; A12-W11L; A12-W12; B04-C02; B04-C03; B04-E01; B04-F01; B04-N02; B11-C13; B12-M10A4; D05-H10; D05-H19
TECH UPTX: 20050506
TECHNOLOGY FOCUS - POLYMERS - Preferred Components: (I) is deployable at the body site via a non-invasive or a minimally invasive surgical procedure. (I) comprises one or more alkoxysilane groups, which undergo a hydrolysis-condensation reaction in the presence of water, which reaction is effected primarily at a predetermined body site, the reaction resulting in an increase in the molecular weight of the polymeric system and producing a change in the rheological and mechanical properties of the system. (I) comprises one or more silanol groups which undergo a hydrolysis-condensation reaction in presence of water at an appropriate pH, which reaction is effected primarily at a body site, the reaction resulting in an increase in the molecular weight of the polymeric system and producing a change in the rheological and mechanical properties of (I). (I) is selectively biodegradable where the system reverts to an essentially un-polymerized or non-cross linked state after a predetermined time. (I) comprises at least one silicon-containing reactive group, the group being a mono, di or tri-functional group. (I) generates a polymer (a linear polymer, a block polymer, a graft polymer, a comb polymer, a

star-like polymer and/or a cross linked polymer). (I) also comprises additional reactive groups (hydroxyl, **carboxyl**, thiol, amine, isocyanate, thioisocyanate and/or double bond-containing active groups). The increase in the molecular weight of (I) and the change in its rheological and mechanical properties is partial and the system is still able to retain some degree of flowability. (I) comprises more than one component that form covalent bonds between them or generate physical blends or interpenetrating and/or pseudointerpenetrating networks at the predetermined body site. (I) contains at least one biomolecule to be delivered into the body. (I) contains living cells or a material of tissue origin. (I) also comprises a solid component, which is a macro, micro or nano-sized material (a polymer, a ceramic material, a metal, a carbon and/or a biological material), where the solid component is a particle, a sphere, a capsule, a rod, a slab, a fiber, a mesh, a ribbon, a web, a non-woven structure, a fabric, an amorphous lattice structure, a filament wound structure, a honeycomb structure and/or a braided structure and where the solid component may be hollow and/or porous.
The solid component possesses reactive moieties capable of reacting with the reactive groups present in (I). The solid component is a biodegradable material. The solid component is a ceramic material (tricalcium phosphate and/or hydroxyapatite). The solid component is of tissue source. The solid component comprises a material (elastin, a collagenous material, albumin, a fibrinous material, demineralized tissue and/or an acellular tissue matrix). The solid component contains at least one biomolecule to be delivered into the body. The solid component contains living cells. The solid component is chemically or physically bound to (I). (I) is a low molecular weight polymer capable of being deployed at a predetermined body site by minimally invasive procedures, the low molecular weight polymer being (polyoxyalkylene, polyester, polyurethane, polyamide, polycarbonate, polyanhydride, polyorthoesters, polyurea, **polypeptide**, polyalkylene, acrylic or methacrylic polymers and/or polysaccharide). (I) is also capable of undergoing a transition that results in a sharp increase in viscosity in response to a predetermined trigger at a predetermined body site, where the transition results in an increase in the viscosity of (I) by at least about 2 times. The predetermined trigger is temperature, where the increase in viscosity takes place as a result of heating from a lower temperature to body temperature. (I) comprises water or an aqueous-based solvent.
(I) is a polyoxyalkylene polymer, a block copolymer comprising polyethylene oxide (PEO) and polypropylene oxide (PPO) (a diblock, a triblock or a multiblock, a segmented block copolymer comprising polyethylene oxide (PEO) or polypropylene oxide (PPO) chains), where the PEO and PPO chains are connected via a chain extender, a poly(alkylco-oxyalkylene) copolymer having the formula R-(OCH2CH)n-OH (where R is an hydrophobic monofunctional segment (poly(tetramethylene glycol), poly(caprolactone), poly(lacticacid) and/or poly(siloxane)), a poly-(alkyl-co-oxyalkylene) copolymer having the formula (-R1-(OCH2CH) **n-O**)pH (where R1 is a bifunctional or multifunctional hydrophobic segment, a poly(N-alkyl substituted acrylamide), preferably poly(N-isopropyl acrylamide) and/or cellulose or its derivatives.
The responsive component is a segmented block copolymer comprising polyethylene oxide (PEO) and polypropylene oxide (PPO) chains, where the PEO and PPO chains are connected via a chain extender, where the chain extender comprises a component (phosgene, aliphatic or aromatic **dicarboxylic** acids or their **acyl** chlorides or anhydrides, cyanuric chloride, dicyclohexylcarbodiimide (DCC), hexamethylene diisocyanate (HDI), methylene bisphenyldiisocyanate (MDI) or other aliphatic or aromatic diisocyanates). The poly(N-alkyl substituted acrylamide) is a copolymer comprising alkoxysilane-containing vinyl monomers. (I) further comprises other polymers that are responsive to

other stimuli (temperature, pH, ionic strength, electric and magnetic fields, energy sources covering a broad range of wavelengths (ultraviolet, visible, infrared, microwave, ultrasound, electron beam or x-rays radiation), fluids and/or biological species). The additional component is capable of undergoing a transition as a result of an increase in temperature that results in a sharp increase in viscosity of at least about 2 times. The responsive component contains biologically or pharmacologically active molecule/s, to be delivered into the body following a unimodal or multimodal time dependent release kinetics, as the molecular weight of (I) as well as its rheological and mechanical properties change at the predetermined body site. The responsive polymeric system contains biologically or pharmacologically active molecule/s, where the active molecules are covalently bound to (I) via silicon-containing reactive groups present in (I). The silicon moieties serve as nuclei for the deposition or crystallization of various materials. The silicon moieties serve as nuclei for the deposition or crystallization of hydroxyapatite or other calcium phosphate derivatives for bone regeneration induction at a predetermined body site. (I) is a water solution or a gel comprising a molecule containing silicon-containing reactive groups and a natural and/or synthetic macromolecule containing functional groups capable of reacting with the silicon-containing reactive groups at a predetermined body site. (I) is a water solution or a gel comprising a molecule containing silicon-containing reactive groups and functional groups capable of reacting with the silicon-containing reactive groups at a predetermined body site. The macromolecule comprises polymer or oligomer (alginates, hyaluronic acid, **chitosan**, and cellulose and their derivatives, collagen, gelatin, agarose, oligoHEMA, polyacrylic acid, polyvinyl alcohol, polyethylene oxide, TMPO, **peptides** and/or proteins).

ABEX UPTX: 20050506

EXAMPLE - Pluronic F127 (molecular weight 12600, 25.2 g) were dried at 120degreesC under vacuum for 2 hours. Then isocyanatopropyl (1.2 g) and dioctotin compound (0.1 g) were added to the reaction mixture and reacted at 80degreesC for one hour, under mechanical stirring (160 rpm) and a dry nitrogen atmosphere. The polymer produced was dissolved in chloroform (30 ml) and precipitated in petroleum ether 40-60 (400 ml). The mixture was worked up to give pluronic F127di-(3-isocyanatopropyl)triethoxysilane.

L150 ANSWER 8 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2005-121248 [13] WPIX
CR 1998-286610 [25]; 2004-118078 [12]; 2005-372235 [38]; 2005-417021 [42]; 2005-424463 [43]; 2005-580451 [59]; 2005-603254 [62]; 2005-603255 [62]
DNN N2005-104627 DNC C2005-040279
TI Crosslinked biodegradable stent or implant, useful for treating vascular restenosis, comprises layers or zones of biological material having bioactive agents, and being crosslinked with means for crosslinking biological material.
DC A96 B04 D21 D22 P32
IN CHEN, M; SUNG, H; TU, H; TU, P Y
PA (CHEN-I) CHEN M; (SUNG-I) SUNG H; (TUHH-I) TU H; (TUPY-I) TU P Y
CYC 1
PI US 2005019404 A1 20050127 (200513)* 45 A61F002-00
ADT US 2005019404 A1 CIP of US 2003-610391 20030630, Provisional US 2003-518050P 20031107, Provisional US 2004-547935P 20040226, Provisional US 2004-565438P 20040426, Provisional US 2004-574501P 20040526, Provisional US 2004-585775P 20040706, US 2004-916170 20040811
PRAI US 2004-916170 20040811; US 2003-610391 20030630;
US 2003-518050P 20031107; US 2004-547935P 20040226;
US 2004-565438P 20040426; US 2004-574501P 20040526;
US 2004-585775P 20040706

IC ICM A61F002-00
ICS **A61K009-22**

AB US2005019404 A UPAB: 20050928
NOVELTY - A crosslinked biodegradable stent or implant (I) comprises one or more layers or zones of biological material having one or more bioactive agents, and being crosslinked with a material for crosslinking the biological material.
ACTIVITY - Cytostatic; Vasotropic; Antiarteriosclerotic; Vulnerary. No supporting data is given.
MECHANISM OF ACTION - None given.
USE - (M1) is useful for treating a target tissue of a patient, which involves providing (I) made one or more layers or zones of biological material comprising one or more bioactive agents, crosslinking the biological material, and delivering (I) to the target tissue and releasing the bioactive agent for treating the target tissue, where the target tissue comprises atherosclerotic plaque or vulnerable plaque (claimed). (I) is useful for treating tumor tissue, for treating tissue injury due to angioplasty, for treating vascular restenosis and atherosclerosis, and in other therapeutic applications.
ADVANTAGE - (I) comprises several layers or zones, each layer or zone comprising its own specific biodegradation rate and its specific loading characteristics, where the loading characteristics include drug type, drug releasing rate and combination of one or more drugs. (I) is loaded with several bioactive agents that are configured suitable for slow drug release, enabling effective treatment by each of several drugs. (I) slowly releases the drug to the surrounding tissue or lumen of the bodily cavity.
DESCRIPTION OF DRAWING(S) - The figure shows a longitudinal view of a vascular stent coated with drug-containing collagen layers that are crosslinked with genipin.
vascular stent 1
stent strut 2
collagen layers 5,6,7
tissue contact surface region 8A
blood contact surface region 8B
Dwg.7/18

FS CPI GMPI

FA AB; GI; DCN

MC CPI: A12-V01; A12-V03; B01-B02; B01-D02; B02-A; B02-D; B02-E; B02-H; B02-R; B02-S; B02-T; B03-F; B04-A10; B04-C02B2; B04-C02E1; B04-H06; B05-B01G; B05-B01P; B05-C05; B06-A01; B06-A02; B06-A03; B06-D09; B07-A02B; B07-B01; B09-B; B10-A04; B10-A17; B10-B02A; B10-C03; B10-C04E; B10-D01; B11-C04A; B12-M16; B14-D07C; B14-D10; B14-F01G; B14-F07; B14-H01; D08-A; D09-C01

TECH UPTX: 20050224
TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Stent: (I) comprises first layer or zone of a first biological material with a first bioactive agent and a second layer or zone of a second biological material with a second bioactive agent. (I) further comprises a third layer or zone of a third biological material with a third bioactive agent, where at least one of the first and second layer or zone is made of a biodegradable shape memory polymer. The bioactive agent is chosen from analgesics/antipyretics, antiasthamatics, **antibiotics**, antidepressants, antidiabetics, antifungal agents, antihypertensive agents, **anti-inflammatories**, antineoplastics, antianxiety agents, immunosuppressive agents, antimigraine agents, sedatives/hypnotics, antipsychotic agents, antimanic agents, antiarrhythmics, antiarthritic agents, antigout agents, anticoagulants, thrombolytic agents, antifibrinolytic agents, antiplatelet agents, antibacterial agents, antiviral agents, antimicrobials, anti-infectives and their combinations. The bioactive agent comprises an angiogenesis factor or anti-angiogenesis

factor. The bioactive agent is chosen from actinomycin D, paclitaxel, vincristin, methotrexate, angiopeptin, batimastat, halofuginone, sirolimus, tacrolimus, everolimus, ABT-578, tranilast, dexamethasone, mycophenolic acid and their combinations. The bioactive agent is chosen from lavastatin, thromboxane A2 synthetase inhibitors, eicosapentanoic acid, ciprostene, trapidil, angiotensin convening enzyme inhibitors, aspirin, heparin and their combinations. The bioactive agent is chosen from allicin, ginseng extract, ginsenoside Rg1, flavone, ginkgo biloba extract, glycyrrhetinic acid, lipostabil, proanthocyanides and their combinations. The bioactive agent is chosen from ApoA-I Milano or recombinant ApoA-I Milano/phospholipid complexes. The bioactive agent is chosen from biological cells or endothelial progenitor cells. The bioactive agent is chosen from growth factor such as vascular endothelial growth factor, transforming growth factor-beta, insulin-like growth factor, platelet derived growth factor, fibroblast growth factor and their combinations. The biological material is chosen from collagen, gelatin, elastin, **chitosan**, **NOCC**, fibrin glue, biological sealant, **chitosan**-alginate complex and their combinations. The biological material is crosslinked with a crosslinking agent chosen from genipin, its analog, derivatives and their combinations, aglycon geniposidic acid, epoxy compounds, dialdehyde, starch, glutaraldehyde, formaldehyde, dimethyl suberimidate, carbodiimides, succinimidyls, diisocyanates, reuterin, and acyl azide. The biological material is crosslinked with a means for crosslinking the material, the means comprising exposing the material to ultraviolet irradiation, dehydrothermal treatment, tris(hydroxymethyl)phosphine, ascorbate-copper, glucose-lysine or photo-oxidizers. The biological material is crosslinked with a reversible crosslinking agent chosen from polyphenolic compounds, proanthocyanidin, epigallocatechin gallate, epicatechin, epigallocatechin, epicatechin gallate, and their combinations. (I) is configured a cylindrical shape that has a first circumference length before contacting water and a second circumference length after contacting water, where the second circumference length is at least 5% more than the first circumference length. (I) is configured a cylindrical shape, comprising a several open-ring stent members configured in a cylindrical manner. (I) is configured a cylindrical shape comprising at least one spiral film.

L150 ANSWER 9 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-775504 [76] WPIX
DNN N2004-610972 DNC C2004-271511
TI Osteoinductive powder useful as bone implant material for bone repair and replacement comprises demineralized bone matrix particles, calcium phosphate powder and optionally biocompatible cohesiveness agent.
DC A96 B04 B05 D22 E33 P32
IN EGAN, D; GILLES, D P L D; LEE, D D; ROSENBERG, A D; TOFIGHI, A N; GILLES DE PELICHY, L D
PA (EGAN-I) EGAN D; (GILL-I) GILLES D P L D; (LEED-I) LEE D D; (ROSE-I) ROSENBERG A D; (TOFI-I) TOFIGHI A N; (ETEX-N) ETEX CORP
CYC 108
PI WO 2004091435 A2 20041028 (200476)* EN 69 A61F000-00
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
US 2005084542 A1 20050421 (200528) A61K035-32 <--
ADT WO 2004091435 A2 WO 2004-US11182 20040412; US 2005084542 A1 Provisional US 2003-462416P 20030411, US 2004-822540 20040412

PRAI US 2003-462416P 20030411; US 2004-822540 20040412
IC ICM A61F000-00; **A61K035-32**
ICS **A61K033-42**
AB WO2004091435 A UPAB: 20041125
NOVELTY - An osteoinductive powder (P) comprises demineralized bone matrix (DBM) particles, a calcium phosphate powder (a) and optionally a biocompatible cohesiveness agent. (P) forms a formable, self-hardening, poorly crystalline apatitic (PCA) calcium phosphate paste when mixed with a liquid.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a formable, self-hardening, PCA calcium phosphate paste comprising a powder component containing DBM particles, calcium phosphate powder and optionally a biocompatible cohesiveness agent, and a fluid sufficient to produce a cohesive formable paste. The paste retains its cohesiveness when introduced at an implant site in vivo and hardens to form PCA calcium phosphate having a compressive strength of greater than 1 MPa;

(2) a bone implant material comprising a PCA calcium phosphate. The PCA calcium phosphate is formed by combining a powder component including DBM particles, a calcium phosphate powder containing an amorphous calcium phosphate and a second calcium phosphate source and a biocompatible cohesiveness agent, and a fluid. The second calcium phosphate source is an acidic calcium phosphate. The powder component and the liquid combine to produce a paste that hardens to form a PCA calcium phosphate having a compressive strength of 1 - 20 MPa; and

(3) assaying the amount of DBM particles, by weight, in a sample comprising DBM particles and a calcium phosphate powder involving adding hydrogen chloride to the sample, agitating the sample, then obtaining, drying and weighing the extracted pellet of DBM particles.

ACTIVITY - Osteopathic.

MECHANISM OF ACTION - None given.

USE - As bone implant material for bone repair and replacement (claimed).

ADVANTAGE - The osteogenic bone implant composition approximates the chemical composition of natural bone. The organic composition of these implant is osteoinductive despite the presence of inorganic component and is present in an amount to maximize the regenerative capabilities of implant without compromising its formability and mechanical strength. The formulation is self-hardening PCA calcium phosphate paste suitable for formable paste which retains its cohesiveness having overall Ca/P ratio of less than 1.67 (preferably 1.0 - 1.67), a compressive strength of 1 - 20 (preferably 2) MPa and are remolded to bone in vivo.

Dwg.0/1
FS CPI GMPI
FA AB; DCN
MC CPI: A12-V02; B04-B03C; B04-C01; B04-C02A; B04-C02B; B04-C02C; B04-C02D; B04-C03; B04-E01; B04-G01; B04-H06L; B04-N02; B05-A01B; B05-B02A3; B14-N01; D08-A; E31-K05C; E31-K06
TECH UPTX: 20041125
TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Composition: (P) comprises (wt.%): DBM particles (1 - 60, preferably 15) and (a) (50 - 99). (a) comprises an amorphous calcium phosphate (a1) and a second calcium phosphate (a2). DBM has a particle size of less than about 850 (preferably 125 - 850 or 53 - 125, especially less than 125) microm. (P) further comprises at least one cohesiveness agent, biologically active agent or effervescent agent.
Preferred Components: (a2) is an acidic (e.g. dicalcium phosphate dihydrate (preferred), calcium metaphosphate, heptacalcium phosphate, tricalcium phosphate, calcium pyrophosphate dihydrate, poorly crystalline

hydroxyapatite, calcium pyrophosphate, or octacalcium phosphate) or a neutral calcium phosphate. (a1) and (a2) have an average crystalline domain size of less than 100 nm. (a) is subjected to a high-energy milling process prior to mixing with DBM particles. The cohesiveness agent is present in about 1 - 20 (preferably less than 5, especially less than 1) wt.%. The effervescent agent (1 - 40 wt.%) is sodium bicarbonate, carbon dioxide, air, nitrogen, helium, oxygen or argon.

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: The cohesiveness agent is a polymer selected from polysaccharides, nucleic acids, carbohydrates, proteins, **polypeptides**, poly(alpha-hydroxy acids), poly(lactones), poly(amino acids), poly(anhydrides), poly(ortho esters), poly(anhydride-co-imides), poly(orthocarbonates), poly(alpha-hydroxy alkanoates), poly(dioxanones), poly(phosphoesters), poly(L-lactide), poly(D,L-lactide), polyglycolide, poly(lactide-co-glycolide), poly(L-lactide-co-D, L-lactide), poly(D,L-lactide-co-trimethylene carbonate), polyhydroxybutyrate, poly(epsilon-caprolactone), poly(delta-valerolactone), poly(gamma-butyrolactone), poly(caprolactone), polyacrylic acid, **polycarboxylic** acid, poly(allylamine hydrochloride), poly(diallyldimethylammonium chloride), poly(ethyleneimine), polypropylene fumarate, polyvinyl alcohol, polyvinylpyrrolidone, polyethylene, polymethylmethacrylate, poly(ethylene glycol), poly(ethylene oxide), poly(vinyl alcohol), poly(vinylpyrrolidone), poly(ethyloxazoline), poly(ethylene oxide)-co-poly(propylene oxide) block copolymers, poly(ethylene terephthalate)polyamide, dextran (preferably alpha-cyclodextrin, beta-cyclodextrin, gamma-cyclodextrin or sodium dextran sulfate), alginic acid, arabic gum, guar gum, xanthan gum, gelatin, **chitin**, **chitosan**, **chitosan acetate**, **chitosan** lactate, chondroitin sulfate, **N,O-carboxymethyl chitosan**, fibrin glue, hyaluronic acid, sodium hyaluronate, cellulose (preferably methylcellulose, **carboxy** methylcellulose, hydroxypropyl methylcellulose or hydroxyethyl cellulose), a proteoglycan, a starch (preferably hydroxyethyl starch or soluble starch), a pluronic, collagen, glycogen, a keratin and/or silk.

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Components: The cohesiveness agent is carbon fibers, glycerol, a glucosamine, lactic acid or sodium glycerophosphate.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Components: The biologically active agent is an antibody, an **antibiotic**, a polynucleotide, a **polypeptide**, a protein (preferably osteogenic protein e.g. BMP-2, BMP-4, BMP-5, BMP-6, BMP-7, BMP-10, BMP-12, BMP-13, and BMP-14), an anti-cancer agent (preferably alkylating agent, platinum agent, antimetabolite, topoisomerase inhibitor, antitumor **antibiotic**, antimitotic agent, aromatase inhibitor, thymidylate synthase inhibitor, DNA antagonist, farnesyltransferase inhibitor, pump inhibitor, histone **acetyltransferase** inhibitor, metalloproteinase inhibitor, ribonucleoside reductase inhibitor, TNF-alpha agonist, TNF-alpha antagonist, endothelin-A receptor antagonist, retinoic acid receptor agonist, immunomodulator, hormonal agent, anti hormonal agent, photodynamic agent, and tyrosine kinase inhibitor), a growth factor, or a vaccine.

ABEX UPTX: 20041125

EXAMPLE - An osteoinductive powder comprising fibrous bone matrix particles (0.4 g) and a calcium phosphate powder (0.6 g) was prepared. A formable, self-hardening paste was prepared by hydrating the powder (1 g) with physiological saline. The compressive strength of the paste was evaluated by loading the paste into cylindrical stainless steel molds

having 6 mm diameter and 12 mm height. The molds were then immersed into saline bath at 37 degrees C for 2 hours. The hardened sample was then removed from the molds and tested for compressive strength. The average compressive strength was measured as 12 +/-1 MPa.

L150 ANSWER 10 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-431600 [40] WPIX
CR 2001-514527 [56]; 2003-362994 [34]
DNC C2004-161595
TI Composition, useful for the treatment of diseases characterized by the production of mucin e.g. steatorrhea, allergic **inflammation** and chronic obstructive pulmonary diseases, comprises biphenyl compounds.
DC B05
IN JONES, S; LEVITT, R C; MCLANE, M; NICOLAIDES, N C; ZHOU, Y
PA (GENA-N) GENAERA CORP
CYC 107
PI WO 2004043392 A2 20040527 (200440)* EN 83 A61K000-00 <--
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
AU 2003287621 A1 20040603 (200470) A61K000-00 <--
EP 1562903 A2 20050817 (200554) EN C07D213-02
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
ADT WO 2004043392 A2 WO 2003-US35864 20031110; AU 2003287621 A1 AU 2003-287621 20031110; EP 1562903 A2 EP 2003-781868 20031110, WO 2003-US35864 20031110
FDT AU 2003287621 A1 Based on WO 2004043392; EP 1562903 A2 Based on WO 2004043392
PRAI US 2002-290443 20021108
IC ICM **A61K000-00**; C07D213-02
ICS **A61K031-44**; C07D401-02
AB WO2004043392 A UPAB: 20050823
NOVELTY - Treatment of diseases characterized by the production of mucin comprises the administration of a composition (A) comprising at least one biphenyl compound.

DETAILED DESCRIPTION - Treatment of diseases characterized by the production of mucin comprises the administration of a composition comprising at least one biphenyl compound of formula (I).

X1-X9 = C, S, O or N; either

R1-R11 = H, CF3, (substituted) alkyl, (substituted) aryl, halo, halo substituted alkyl, halo substituted aryl, cycloalkyl, hydroxyl, alkyl ether, aryl ether, amine, alkyl amine, aryl amine, alkyl ester, aryl ester, alkyl sulfonamide, aryl sulfonamide, thiol, alkyl thioether, aryl thioether, alkyl sulfone, aryl sulfone, alkyl sulfoxide, aryl sulfoxide or sulfonamide; or

R1R2, R2R3, R3R4, R4R5, R6R7, R7R8 or R8R9 = a cycloalkyl ring or an (hetero)aryl ring;

Y = C(O)R, H, **carboxylate**, alkyl **carboxylate**, sulfate, sulfonate, phosphate, phosphonate, amides of **carboxylic** acids, esters of **carboxylic** acids, amides of phosphoric acids, esters of phosphoric acids, amides of sulfonic acids, esters of sulfonic acids, amides of phosphonic acids , esters of phosphonic acids, sulfonamide, phosphonamide, tetrazole or hydroxamic acid;

R = aryl, phosphonate, styryl, 3H-isobenzofuran-1-one-3-oxyl or 3H-isobenzofuran-1-one-3-yl;

R11, Y = a cyclic sulfonamide;

Z = O, N, S, C, sulfoxide or sulfone (when the atom is S, sulfoxide or sulfone, the groups R10 and R11 are not present and when the atom is N, only R10 is present);

dashed lines = single or double bond;

m = 0-1; and

n = 1-2.

Provided that no more than one of X1-X9 is N.

INDEPENDENT CLAIMS are also included for:

(1) A therapeutic composition (B) formulated for inhalation delivery to the lungs, comprising at least one of talniflumate, flufenamic acid, niflumic acid, mefenamic acid and/or N-(3-fluorobenzyl)-3-aminoquinoline, their salts or prodrugs effective to decrease mucin production or mucin synthesis; and

(2) A biphenyl compound of formula (II).

X = S, **N**, **O** or CR;

Y = CRR', O, NR6 CRR'-CRR1 or CR=CR;

Z = NR5, O, S, CRR' or CRR'-CRR';

R1-R3 = H, 1-8C alkyl, 1-8C alkoxy, NH2, OH, halosubstituted alkyl or halo;

R4 = H, benzofuran-2-one compound of formula (1), benzoic acid compound of formula (2) or biphenyl compound of formula (3) (preferably H);

Q = CR, NR6 or benzimidazole compound of formula (4);

R5 = H or benzyl (preferably H);

R6 = H, 1-8C alkyl, 1-8C alkoxy, OH or halo (preferably H);

dashed lines = single or double bonds; and

R, R' = H, 1-8C alkyl, 1-8C alkoxy, OH or halo.

In radicals (2) - (3) attachment points shown are exemplary and are not defined in the specification.

ACTIVITY - Antiasthmatic; **Antiinflammatory**; CNS-Gen.; Respiratory-Gen.; Antimicrobial; Gastrointestinal-Gen.; Antidiarrheic; Antiallergic.

No biological data available.

MECHANISM OF ACTION - Mucin synthesis inhibitor; Cyclooxygenase-2 inhibitor.

USE - Compounds (I) are useful in the treatment of diseases characterized by the production of mucin (particularly acute/chronic sinusitis, asthma, (chronic) bronchitis, chronic obstructive pulmonary disease, an inflammatory lung disease, cystic fibrosis, an acute/chronic respiratory infectious disease, emphysema, gastrointestinal malabsorption syndrome, steatorrhea, diarrhea, allergic inflammation and bronchial hyperresponsiveness).

The treatment of diseases with (I) reduces airway inflammation, epithelial related inflammation, inflammatory cells and gastrointestinal inflammation; down-regulates mediators (interleukin 9) of airway inflammation; decreases the number of goblet cells in the respiratory tract, epithelia and gastrointestinal tract and decreases the number of submucosal glands in the respiratory tract, sinuses and gastrointestinal tract (claimed).

The biological effectiveness of (I) in treating bronchial hyperresponsiveness was tested. The compounds were able to suppress airway hyperresponsiveness and also over-production of mucus in the lung caused by exposure to antigens.

ADVANTAGE - Compounds (I) are highly effective for the treatment of diseases characterized by the production of mucin.

Dwg.0/23

FS CPI

FA AB; GI; DCN

MC CPI: B04-C02B1; **B04-C02E3**; B05-B01E; B05-B01F; B05-B01N; B06-A02; B06-H; B07-H; B10-A08; B10-A10; B10-A18; B10-B04; B10-D03;

B10-E02; B10-E04; B10-F02; B10-G02; B10-H01; B10-H02; B14-A01; B14-A02; B14-C03; B14-D05C; B14-E02; B14-E10; B14-G02A; B14-K01; B14-L06; B14-L07; B14-N04

TECH UPTX: 20040624

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Compounds: Compounds (I) are bendroflumethiazide, analogues and derivatives of: anthranilic acid, 2-aminonicotinic acid, 2-amino-**phenylacetic** acid or aminoquinolines and their salts or prodrugs (preferably talniflumate, a talniflumate derivative and their salts or prodrugs.

Preferred Composition: Composition (A) or (B) is in the form of a liquid (aerosolized) or a powder. (A) further comprises expectorant (guaifenesin), mucolytic agent, **antibiotic** and/or decongestant agent. (A) further comprises stabilizing agent (cyclodextrin), absorption-enhancing agent (**chitosan**) and/or flavoring agent. (B) comprises talniflumate and/or a talniflumate derivative and their salts or prodrugs. (I) is administered as a prodrug (comprised of talniflumate).

Preferred Method: Compounds (I) decrease mucin synthesis/secretion (chloride channel dependent) in cells that express an ICACC chloride channel (comprised by one or more calcium activated chloride channels) (particularly in the respiratory tract, upper respiratory tract, gastrointestinal tract and pancreas). (A) is administered via inhalation to the lungs or nasal passages. (I) also inhibits cyclooxygenase (specifically cyclooxygenase 2). (B) (particularly micronized composition) is formulated to increase the bioavailability of (I).

For the treatment of chronic sinusitis, talniflumate is preferably used.

ABEX UPTX: 20040624

SPECIFIC COMPOUNDS - The use of Talniflumate (preferred); Flufenamic acid; Niflumic acid; Mefenamic acid; Bendroflumethiazide; and N-(3-fluorobenzyl)-3-aminoquinoline is specifically claimed as (I). 15 compounds (II) are specifically claimed e.g. 5-(2-oxo-2-(2-(3-trifluoromethyl-phenylamino)-pyridin-3-yl)-ethyl)-5H-furo(3,4-b)pyridin-7-one (IIa).

ADMINISTRATION - Administration of (I) is oral or via inhalation (claimed), at a dosage of 0.01-100 (preferably 0.1-10) mg/kg/day (systemically).

DEFINITIONS - Preferred Definitions: In (I);
Y = C(O)R or **carboxylate**;
R = aryl, phosphonate, styryl, 3H-isobenzofuran-1-one-3-oxyl or 3H-isobenzofuran-1-one-3-yl;
R1-R11 = CF3 or alkyl;
X6 = C or N;
n = 2;
one Z group = NR10; and the other Z group is CR10R11 (where R10 is H and R11 is an amine group); and
Y = sulfone (where Y and R11 form a cyclic sulfonamide).

L150 ANSWER 11 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-282793 [26] WPIX
CR 2004-282792 [26]
DNN N2004-224240 DNC C2004-108629
TI Active bone and cartilage regenerating composition for induction of new bone and cartilage formation in mammals, comprises bone marrow cells and demineralized bone matrix or demineralized tooth matrix together with site-responsive polymer.
DC A25 A96 B04 B07 D22 P34
IN COHN, D; GUREVITCH, O; KURKALLI, B G S; SLAVIN, S; SOSNIK, A
PA (YISS) YISSUM RES DEV CO HEBREW UNIV JERUSALEM; (HADA-N) HADASIT MEDICAL

RES SERVICES & DEV CO LT; (HADA-N) HADASIT MEDICAL RES SERVICES & DEV
CYC 106
PI WO 2004022121 A1 20040318 (200426)* EN 99 A61L027-38
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
AU 2003256055 A1 20040329 (200459) A61L027-38
EP 1585556 A1 20051019 (200569) EN A61L027-38
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
ADT WO 2004022121 A1 WO 2003-IL728 20030904; AU 2003256055 A1 AU 2003-256055 20030904; EP 1585556 A1 EP 2003-794037 20030904, WO 2003-IL728 20030904
FDT AU 2003256055 A1 Based on WO 2004022121; EP 1585556 A1 Based on WO 2004022121
PRAI WO 2002-IL736 20020904
IC ICM A61L027-38
ICS **A61K035-28**; **A61K035-32**; A61L027-26
AB WO2004022121 A UPAB: 20051027
NOVELTY - An active bone and cartilage regenerating composition comprising bone marrow cells (BMC) and demineralized bone matrix (DBM) or demineralized tooth matrix together with a site-responsive polymer and optionally carrier, additive, diluent, and/or excipient, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a kit for performing transplantation of BMC in admixture with DBM and a site-responsive polymer into any one of a joint, a cranio-facial-maxillary bone, an alveolar bone of maxilla and mandibula, spine, pelvis and long bones, or for construction or reconstruction of an extraskeletal bone, including for mechanical or biological support of artificial implants to the joint or of the joint or to the bone of a mammal, where the kit comprises DBM in powder, particle, string or slice form; a site-responsive polymer; a BM aspiration needle; an intra-osseous bone drilling burr; a needle with a thick lumen for infusion of viscous bone marrow-DBM-site-responsive polymer mixture; a 2-way lumen connector for simultaneous mixing of BMC with DBM and site-responsive polymer and diluent; a medium for maintaining BMC; optionally additional factors stimulating osteogenesis; and cryogenic mechanism for handling and maintaining BMC or BMC together with DBM.

ACTIVITY - Cytostatic; Osteopathic. No biological data given.

MECHANISM OF ACTION - None given.

USE - The composition is used for induction of new bone and cartilage formation in mammals; transplantation of mesenchymal progenitor cells into any one of a joint, a cranio-facial-maxillary bone, an alveolar bone of maxilla and mandibula, spine, pelvis or long bones of a subject (i.e. a mammal, preferably a human); construction or reconstruction of an extraskeletal bone of a subject in need; restoring and/or enhancing the formation of a new hyaline cartilage and/or subchondral bone structure; mechanical or biological support of an artificial implant to a joint or of a joint or to a bone of a subject; treatment of a patient suffering from any one of hereditary or acquired bone disorder, hereditary or acquired cartilage disorder, a primary malignant bone or cartilage disorder, bone defects due to metastases or bone lesions due to a hematopoietic malignancy, particularly multiple myeloma, metabolic bone diseases, bone infections, conditions involving congenital or acquired bone or cartilage deformities and Paget's disease; treatment of a patient in need of any one of correction of complex fractures, bone replacement and formation of new bone in plastic or sexual surgery, by administering the composition into

the joint or bone (all claimed).

ADVANTAGE - The invention maintains integrity and shape of the transplanted complex, provides transplanted complex with the mechanical properties to temporarily meet the requirements of the organism (e.g. withstanding physical and mechanical pressure) throughout the period of tissue regeneration.

Dwg.0/10

FS CPI GMPI

FA AB; DCN

MC CPI: A12-V02; B04-C02A; B04-F02; B04-H06L; B04-J01; B04-L01; B04-N02; B11-C04A; B14-H01; D09-C01D

TECH UPTX: 20040421

TECHNOLOGY FOCUS - POLYMERS - Preferred Component: The site-responsive polymer is polymeric system or biodegradable RTG polymer comprising silicon-containing reactive group(s). The composition comprises active agents, preferably bone morphogenetic proteins (BMPs), an immunosuppressant, an immunomodulator, an **antibiotic**, or **anti-inflammatory** agents. The RTG polymer comprises hydrophilic and hydrophobic segments covalently bound by chain extender(s) or coupling agent, having at least two functional groups. The hydrophilic and hydrophobic segments do not display Reverse Thermal Gelation behavior of their own at body temperature. The RTG polymer is a segmented block copolymer comprising polyethylene oxide (PEO) and polypropylene oxide (PPO) chains connected via a chain extender. The chain extender is a bifunctional, trifunctional or multifunctional molecule from phosgene, aliphatic or aromatic **dicarboxylic** acids, their reactive derivatives such as **acyl** chlorides and anhydrides, diamines, diols, aminoacids, **oligopeptides**, **polypeptides**, or cyanuric chloride or any other bifunctional, trifunctional or multifunctional coupling agent, or other molecules, synthetic or of biological origin, able to react with the mono, bi, tri, or multifunctional -OH, -SH, -COOH, -NH2, -CN or -NCO group terminated hydrophobic and hydrophilic components, and/or any other bifunctional or multifunctional segment. The polymer can be Pluronic, preferably Pluronic F127 or F108. It may a random (-PEG6000-O-CO-(CH2)4-CO-O-PPG3000-)n poly(ether-ester) or an alternating (-PEG6000-O-CO-O-PPG3000-)n poly (ether-carbonate). The silicon-containing reactive group is capable of undergoing a condensation reaction effected primarily at a body site in the presence of water and at body temperature. The reaction results in an increase in the molecular weight of the polymeric system due to polymerization and/or cross-linking and produces at least a partial change in the rheological and mechanical properties of the system. The responsive polymeric system comprises alkoxysilane group(s) capable of undergoing a hydrolysis-condensation reaction in the presence of water which reaction is effected primarily at a body site. The responsive polymeric system comprises silicon-containing reactive group(s). It generates a polymer from a linear polymer, a graft polymer, a comb polymer, a star-like polymer, and/or a cross-linked polymer. It also comprises additional reactive groups from hydroxyl, **carboxyl**, thiol, amine, isocyanate, thio-isocyanate, and/or double bond-containing active groups. It may comprise a solid component that is a biodegradable material or chemically or physically bound to the responsive polymeric system. It is a silicon-containing monomer, oligomer or low molecular weight polymer, from polyoxyalkylene, polyester, polyurethane, polyamide, polycarbonate, acrylic and methacrylic polymers, poly anhydride, polyorthoesters, polyurea, **polypeptide**, polyalkylene, and/or polysaccharide. It can also be polyoxyalkylene polymer, a block copolymer comprising polyethylene oxide and polypropylene oxide from a diblock, a triblock or a multiblock, a segmented block copolymer comprising polyethylene oxide and polypropylene oxide chains connected via a chain extender, a

poly(alkyl-co-oxyalkylene) copolymer having the formula R-(OCH2CH)n-OH, a poly(alkyl-co-oxyalkylene) copoly(siloxane) copolymer of formula (-R'-(OCH2CH)**n-O**)pH, poly(N-alkyl substituted acrylamide), preferably poly(N-isopropyl acrylamide), and/or cellulose or its derivative. The responsive polymeric system is a segmented block copolymer comprising polyethylene oxide and polypropylene oxide-chains, connected via a chain extender from phosgene, aliphatic or aromatic **dicarboxylic** acids, or their reactive derivatives such as **acyl** chlorides and anhydrides or other molecules able to react with the OH terminal groups of the PEO and PPO chains, such as dicyclohexylcarbodiimide (DCC), aliphatic or aromatic diisocyanates from hexamethylene diisocyanate or methylene bisphenyldiisocyanate or cyanuric chloride and/or any other bifunctional or multifunctional segment. The poly(N-alkyl substituted acrylamide) is a copolymer comprising alkosilane-containing vinyl monomers. The responsive polymeric system can be alginates and its derivatives, hyaluronic acid and its derivatives, collagen, gelatin, **chitosan** and its derivatives, agarose, cellulose and its derivatives, water soluble synthetic, semi-synthetic or natural oligomers and polymers from oligoHEMA, polyacrylic acid, polyvinyl alcohol, glycerol, polyethylene oxide, TMPO, oligo and polysaccharides, **oligopeptides**, **peptides**, proteins, enzymes, growth factors, hormones, and/or drugs. The DBM is of vertebrate origin or human origin.

R = hydrophobic mono-functional segment from watpoly(tetramethylene glycol), poly(caprolactone), and/or poly(lactic selecacid);

R' = bifunctional or multifunctional hydrophobic segment.

Preferred Property: The DMB has a particle size of 50-2500, preferably 250-500 micrometer.

Preferred Composition: The ratio between BMC and DBM is 1:1-20:1, preferably 4:1 by volume. The composition contains BMC-DBM mixture and RTG polymer at a ratio of 5:1-1:5 preferably 3:1-1:2. The number of bone marrow cells in the composition is 10 to the power of 6-4x10 to the power of 10 cells/ml.

ABEX UPTX: 20040421

ADMINISTRATION - The composition can be administered directly on a joint bearing a damage in the osteo-chondral complex or in the cranium of an animal with a partial bone defect in the perietal bone.

EXAMPLE - Male Lewis rats were anesthetized by intraperitoneal injection of Ketamine. Microfracture drilling was inflicted in articular cartilage and subchondral bone in the intrachondylar region of the femur. The defect was filled with BMC (bone marrow cells) suspension mixed with DBM (demineralized bone matrix) powder with the supplement of RTG polymeric material. The skin was closed with stainless clips. The transplantation of the composition into performed full thickness damage in the osteo-chondral complex of the knee joint allowed to maintain smooth and uniform regenerating surface in the defect area for complete rehabilitation of the joint.

L150 ANSWER 12 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-141480 [14] WPIX
CR 2004-131881 [13]
DNC C2004-056417
TI Treatment or prevention of microbial infection e.g. viral infections comprises administration of sulfated polysaccharide, e.g. sulfated dextran, with low percent of sulfation.
DC A11 A96 B04 C03
IN COMPER, W D
PA (COMP-I) COMPER W D
CYC 1

PI US 2003181416 A1 20030925 (200414)* 33 A61K031-727 <--
ADT US 2003181416 A1 Provisional US 2002-346629P 20020110, Provisional US 2002-366532P 20020325, Provisional US 2002-366533P 20020325, Provisional US 2002-402695P 20020813, US 2002-321756 20021217
PRAI US 2002-321756 20021217; US 2002-346629P 20020110; US 2002-366532P 20020325; US 2002-366533P 20020325; US 2002-402695P 20020813
IC ICM **A61K031-727**
ICS **A61K031-715**
AB US2003181416 A UPAB: 20040226
NOVELTY - Treatment or prevention (P1) of a microbial infection involves administration of a composition comprising a sulfated polysaccharide (A1) having 6-13 (preferably 9-13) % of sulfur substitution per glucose residue or a levorotatory sulfated polysaccharide having 6-20 % sulfur.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) treatment or prevention (P2) of a microbial infection involving administering a periodate treated anionic polysaccharide, a co-charged anionic polysaccharide (A2), or a compound (A3) selected from cellulose sulfate, (14)-2-deoxy-2-sulfamido-3-O-sulfo-(14)- beta -D-glycopyranan (derivative of **chitosan**), 2-**acetamido** -2-deoxy-3-O-sulfo(14)- beta -D-glycopyranan (derivative of **chitosan**), Achranthese bidentata polysaccharide sulfate, **Aurintricarboxylic** acid, calcium spirulan, **carboxymethylchitin**, chemically degraded heparin (Org 31733), chondroitin polysulfate, copolymer of sulfonic acid and biphenyl disulfonic acid urea (MDL 10128), curdlan sulfate, cyanovirin-N (from cyanobacterium), fucoidin, galactan sulfate, glucosamine-6-sulfate (monosaccharide), glycyrrhizin sulfate, heparin, inositol hexasulfate, lentinan sulfate, mannan sulfate, N-**acylated** heparin conjugates, N-**carboxymethylchitosan-N,O**-sulfate, oligonucleotide-poly(L-lysine)-heparin complexes, pentosan polysulfate (xylanopolyhydrogen sulfate), peptidoglycan DS-4152, periodate degraded heparin, phosphorothioate oligodeoxynucleotides, **polyacetal** polysulfate, polyinosinic-polycytidylic acid, polysaccharides from indocalamus tesselatus (bamboo leaves), prunellin, Rhamnan sulfate, ribofuranan sulfate, sodium lauryl sulfate, sulfate dodecyl laminarapentaoside (alkyl oligosaccharide), sulfated bacterial glycosaminooglycan, sulfated dodecyl laminari-oligomer (alkyl oligosaccharide), sulfated gangliosides, sulfated laminara-oligosaccharide glycosides synthesized from laminara-tetraose, laminara-pentaose, laminara-hexaose, sulfated N-**deacetylatedchitin**, sulfated octadecyl maltohexaoside (alkyl oligosaccharide), sulfated octadecyl ribofumans, sulfated oligoxylan (heparin mimetic), sulfated xylogalactans, sulfatide (3' sulfogalactosylceramide), Sulfoeveman and xylomannan sulfate;

(2) a method (P3) of controlling the sulfation of sulfated polysaccharide administered in vivo to mammal involving providing the sulfated polysaccharide with a sulfation to eliminate or reduce binding of the polysaccharide by high charge density polyanion cell receptors and to provide anti-microbial activity to the sulfated polysaccharide, and administering the polysaccharide to a mammal;

(3) a pharmaceutical composition comprising a sulfated dextran having 6-13 % sulfur and a molecular weight of greater than 25000; and

(4) a prophylactic device (preferably condom) which is coated with a sulfated polysaccharide having 6-13 % sulfur.

ACTIVITY - Antimicrobial; Virucide; Antibacterial; Anti-HIV; Antiparasitic; **Antiinflammatory**; Antiarthritic.

An in vivo anti-viral activity of dextran sulfate and variants of sulfated dextrans was assessed in a pharmacokinetic study involving single

intravenous dose of 60 mg/kg commercially available dextran sulfate (approx. 17% sulfur) (DS) 40000 molecular weight and dextran sulfate (12.2% sulfate) (DES6) 40000 molecular weight given to three male and three female rats. Rats were Sprague-Dawley, previously cannulated in the vena cava. Blood was drawn at various times after injection and assessed for anti-HIV activity in an acute infectivity cytoprotection assay system utilizing HIV-1 RF virus with CNE-SS cells based on Witvrouw et al., J. Acqur. Immun. Def Syndr., 3:343-347, 1990. The results indicated that DS was highly toxic with only one rat surviving beyond 24 hours. In contrast good survival and circulating anti-HIV activity for as long as 120 hours after injection were observed in the DES6 treated rats. DES6 showed a prolonged half-life in the blood between 12 and 18 hours and an extended anti-viral activity beyond 72 hours.

MECHANISM OF ACTION - Microbial growth inhibitor. Human peripheral blood mononuclear cells blasted with phytohemagluttin (PHA) and interleukins-2 (IL-2) were counted. The cells were suspended in RPMI 1640 (RTM) (1 multiply 106 cells/ml) without phenol red supplemented with 15% fetal bovine serum, L-glutamine (2 mM), penicillin (100 U/ml), streptomycin (100 mu g/ml), gentamycin (10 mu g/ml) and IL-2 (20 U/ml). Fifty mu l of cells were then distributed to the inner 60 wells of a 96 well round bottom microtiter culture plate. Each plate contains cell control wells, virus control wells and experimental wells. Sulfated dextran (12.5% sulfur) was added to the microtiter plate followed by pretitered dilution of HIV-1 RoJo. The assay was incubated for 6 days in a humidified atmosphere at 37 deg. C, 5% CO2, after which supernatants were collected and IC50 value was determined, which was 1.6 mu g/ml.

USE - For treatment or prevention of a microbial infection

ADVANTAGE - (A1)-(A3) have a degree of sulfation effective to enable maximal interaction of constituent sulfate groups with the microbe, which causes the infection. (A1)-(A3) are not endocytosed or degraded by cell receptor binding in the mammal and thus, retains antimicrobial activity in vivo. The compounds reduce or avoid the adverse effects e.g. toxicities associated with the oral or parenteral administration of conventional sulfated polysaccharides. The compounds are administered directly to the lymphatic system of a patient.

Dwg.0/5

FS CPI

FA AB; DCN

MC CPI: A03-A00A; A12-V01; B04-B03C; B04-C02; B04-C03D; B14-A01; B14-A02; B14-A04; B14-B02; B14-C03; B14-C09; C04-B03C; C04-C02; C04-C03D; C14-A01; C14-A02; C14-A04; C14-A06; C14-B02; C14-C03; C14-C09

TECH UPTX: 20040226

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Compound: When the molecular weight of (A1) is greater than 5000 (preferably 5000-1000000, more preferably above 25000, especially above 40000, particularly greater than 500000) g/mol, it cannot treat a herpes infection except dextrin sulfate, cyclodextrin or carrageenan.

Preferred Method: (P1) and (P2) further involves administration of an additional therapeutic agent

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Compound: (A1) comprises D-glucopyranose residues linked by alpha-1,6 linkages or L-glucopyranose residues. (A2) is co-charged with **carboxymethyl**, sulfonate and/or sulfate groups.

ABEX UPTX: 20040226

SPECIFIC COMPOUNDS - Sulfated dextran is specifically claimed as (A1).

ADMINISTRATION - The compounds are administered in a dosage of 0.001 - 200 (preferably 0.005 - 100) or 0.1 - 1500 mg/kg per day parenterally, orally, topically (claimed), mucosally (including sublingually, buccally,

rectally, nasally or vaginally) or transdermally. The parenteral administration includes subcutaneous, intramuscular, bolus injection, intraarterial and intravenous administration.

L150 ANSWER 13 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-084489 [09] WPIX
DNC C2004-034808
TI New cosmetic or dermatological compound, useful e.g. for treating dry skin, dandruff or acne, comprising active agent bonded to polymer via spacer and released in presence of microbial enzyme.
DC A96 B05 C03 D21 E19
IN GHANDCHI, P; QUINN, F X
PA (OREA) L'OREAL SA
CYC 1
PI FR 2839451 A1 20031114 (200409)* 52 A61K031-085 <--
ADT FR 2839451 A1 FR 2002-5737 20020507
PRAI FR 2002-5737 20020507
IC ICM **A61K031-085**
ICS **A61K031-05; A61K031-122; A61K031-4412;** A61P017-00
ICA C07C039-30; C07C049-717
AB FR 2839451 A UPAB: 20040205
NOVELTY - A new compound (I) comprises active agent(s) (A) having an active site (AS), a spacer (SP) and a polymer (PL), (A) being in inactive form when bonded to (PL) via (SP), where: (i) (A) is released from (SP), by cleavage at (AS), in presence of enzyme released by a microorganism; and (ii) (AS) is selected from about 50 specific groups, e.g. **carboxylic** or sulfonic acid, alcohol, amine, thiol or ester.

DETAILED DESCRIPTION - A new compound (I) comprises active agent(s) (A) having an active site (AS), a spacer (SP) and a polymer (PL), (A) being in inactive form when bonded to (PL) via (SP), where:

(i) (A) is released from (SP), by cleavage at (AS), in presence of enzyme released by a mcroorganism; and

(ii) (AS) is selected from alkene, diene, alkyne, alcohol, **carboxylic** acid, ester, anhydride, aldehyde, ketone, aldo-ketene, keto-ketene, ether, epoxide, peroxide, **hemiacetal**, **acetal**, amine, hydrazine, amide, imine, imide, hydroxylamine, hydroxamic acid, oxime, hydrazone, hydrazide, nitrile, isocyanate, azo, azidocarbonyl, nitro, nitrate, sulfenic acid, sulfinic acid, sulfonic acid, sulfate, sulfone, sulfoxide, thioacid, thioketone, thioester, thiol, thioether, disulfide, acid halide, ether halide, sulfenyl, halide sulfonyl halide or nitrite ion.

INDEPENDENT CLAIMS are included for:

(a) the preparation of (I), by reacting (A) with (SP) and (PL);

(b) cosmetic, dermatological or pharmaceutical compositions comprising (I) in a suitable medium; and

(c) a cosmetic treatment method for the skin or hair, involving application of a (I)-containing composition.

ACTIVITY - Dermatological; antiseborrheic; **antiinflammatory**; antialopecia; anorectic; antibacterial; fungicide.

MECHANISM OF ACTION - None given in the source material.

USE - The (I)-containing compositions are specifically used: (a) cosmetically for treating or preventing dry skin, loss of tone and/or elasticity of the skin, hyperpigmentation, skin aging symptoms, sensitive skin or wrinkles, for modulating microcirculation or regulating comedolytic activity, as slimming agents, for toning the hair and for treating dandruff; or (b) medicinally for treating **inflammatory** skin conditions, pathological whitening of the hair, severe skin diseases (e.g. xerosis), alopecia or acne or for modulating cutaneous energetic metabolism (all claimed).

ADVANTAGE - (A) in active form is released in controlled and selective manner in the region to be treated, specifically in an amount proportional to the quantity of enzyme released by a microorganism causing the disorder to be treated (e.g. Propionibacterium acnes or Pityrosporium ovale).

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A10-E01; A12-V01; A12-V04A; A12-V04C; B04-C02A; B04-C02D; B04-C02E; B10-A03; B10-A14; B10-E04; B10-F02; B10-G02; B12-M10; B14-A01; B14-A04; B14-C03; B14-E12; B14-N17; B14-R02; C04-C02A; C04-C02D; C04-C02E; C10-A03; C10-A14; C10-E04; C10-F02; C10-G02; C12-M10; C14-A01; C14-A04; C14-C03; C14-E12; C14-N17; C14-R02; D08-B09A; E10-A03; E10-A14B; E10-E04; E10-F02; E10-G02

TECH UPTX: 20040205

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Active Agents: (AS) is **carboxylic** acid, sulfonic acid, alcohol, amine, thiol, ether, ester, amide or nitrile. (A) are selected from anti-acne, antiseborrheic, antidandruff, antialopecia, **antiinflammatory**, **antiinflammatory**, antioxidant, anti-free radical, antiwrinkle, antiaging, antiseptic, biocidal, depigmenting, pro-pigmenting, moisturizing, keratolytic, comedolytic, desquamating, sunscreen, skin coloring, dyeing, conditioning, slimming, microcirculation modulating or cutaneous energetic metabolism modulating agents or ceramides. More specifically (A) is selected from triclosan (or its hexanoate, tetradecanoate, octadec-9-enoate, 2-**acetoxyoctanoate** or 2-hydroxyoct-2-enoate ester), 1-hydroxy-2-pyrrolidone derivatives (especially piroctone 2-**acetoxyoctanoate** or piroctone octanoate), tropolone (or its 2-**acetoxyoctanoate** or octanoate), hinokitiol, octoxyglycerin or menthol.

TECHNOLOGY FOCUS - POLYMERS - Preferred Materials: (PL) has a solubility in water of at least 0.01% at 20degreesC under atmospheric pressure and is preferably a polysaccharide, especially guar gum, xanthan gum, pullulan (most preferred), carrageenate, agar, agarose, dextran, cellulose gel, alginate, **chitin** or **chitosan**. (SP) comprise a 1-50C (preferably 3-12C) linear, branched or cyclic, saturated or unsaturated carbon chain, containing at least two groups selected from amine, thio, carbamate, ether, ester, amide and CN. Preferably (SP) contains 1-5 heteroatoms selected from **N**, **O**, S and P. In particular (SP) is hexane-1,6-diisocyanate or octane-1,8-diisocyanate.

ABEX UPTX: 20040205

ADMINISTRATION - (I) is specifically contained at 0.001-30 (preferably 0.05-20, especially 0.1-2) weight %, in an aqueous, aqueous alcoholic or oily solution, oil-in-water, water-in-oil or multiple emulsion, aqueous or oily gel, anhydrous liquid, paste or solid, spherule-based oil in water dispersion, white or colored cream, ointment, milk, lotion, serum, paste, foam or shampoo formulation (all claimed). (I) is optionally together with a wide range of specific additives or other active agents.

EXAMPLE - A solution of 10 g 5-chloro-2-(2,4-dichlorophenoxy)-phenol (triclosan) in 70 m dichloromethane was treated with 10 g triethylamine and 10.2 g phenol-blocked 6-isocyanato-hexanoyl chloride and stirred for 20 hours at room temperature. Work-up and chromatographic purification gave 5-chloro-2-(2,4-dichlorophenoxy)-phenyl phenol-blocked 6-isocyanato-hexanoate. A solution of 10 g of the product in 100 ml dimethyl sulfoxide (DMSO)was treated with a catalytic amount of dibutyl tin dilaurate, heated at 110degreesC for 6 hours, cooled and treated with petroleum ether. The precipitate was recovered, washed and dried to give 5-chloro-2-(2,4-dichlorophenoxy)-phenyl 6-isocyanato-hexanoate (II). A

solution of 0.107 g (II) in 46 ml DMSO was treated with a solution of 4.05 g pullulan in 54 ml DMSO, heated at 80degreesC under nitrogen for 8 hours, poured into ethanol and kept at 4degreesC overnight. The precipitated was filtered off, dialyzed against water and lyophilized to give pullulan modified with 1% (II), having formula (Ia). Tests showed that (Ia) was hydrolyzed by Propionibacterium acnes or Pityrosporium ovale culture supernatants to release triclosan. (Ia) was incorporated at 1 weight % in an anti-acne cream.

L150 ANSWER 14 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-061934 [06] WPIX
CR 2000-072517 [06]
DNN N2004-050215 DNC C2004-025257
TI Preparation of a magnetic-resonance imageable medical device comprises providing a coating of paramagnetic-ion/chelate complex on the medical device encapsulated by a first hydrogel.
DC A96 B04 B07 D22 P34 S01 S03 S05
IN JIANG, X; LI, J; STROTHER, C M; UNAL, O; YU, H
PA (WISC) WISCONSIN ALUMNI RES FOUND
CYC 101
PI WO 2003094975 A1 20031120 (200406)* EN 44 A61K049-08 <--
RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
AU 2002353152 A1 20031111 (200442) A61K049-08 <--
EP 1501552 A1 20050202 (200510) EN A61K049-08 <--
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
US 6896874 B2 20050524 (200535) A61B005-055
JP 2005525176 W 20050825 (200560) 56 A61L029-00
ADT WO 2003094975 A1 WO 2002-US40007 20021213; AU 2002353152 A1 AU 2002-353152 20021213; EP 1501552 A1 EP 2002-790131 20021213, WO 2002-US40007 20021213; US 6896874 B2 Provisional US 1998-86817P 19980526, Cont of US 1998-105033 19980625, CIP of US 2002-96368 20020312, US 2002-142363 20020509; JP 2005525176 W WO 2002-US40007 20021213, JP 2004-503058 20021213
FDT AU 2002353152 A1 Based on WO 2003094975; EP 1501552 A1 Based on WO 2003094975; US 6896874 B2 Cont of US 6361759; JP 2005525176 W Based on WO 2003094975
PRAI US 2002-142363 20020509; US 1998-86817P 19980526;
US 1998-105033 19980625; US 2002-96368 20020312
IC ICM A61B005-055; **A61K049-08**; A61L029-00
ICS **A61K049-18**; A61L029-18; A61L031-00; A61L031-18; A61M025-00; A61M025-01; G01R033-28
AB WO2003094975 A UPAB: 20050920
NOVELTY - Preparation (M1) of a magnetic-resonance imageable medical device (D1) involves providing a coating on the medical device in which a paramagnetic-metal ion/chelate complex (c1) is encapsulated by a first hydrogel. A chelate of the paramagnetic-metal-ion/chelate complex is linked to a functional group (f1). The functional group is an amine group or a **carboxyl** group.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) A medical device (D2) capable of being magnetic-resonance imaged comprises a chelate linked to a functional group (f2) (preferably amino or **carboxyl** group), paramagnetic-metal ion coordinated with the chelate to form a paramagnetic-metal-ion/chelate complex (c2) and a first hydrogel encapsulating (c2);

(2) Reduction (M2) of the mobility of paramagnetic-metal-ion/chelate

complexes (c3) covalently linked to a solid-base polymer (p1) of a medical device involving: a1) providing a medical device having (c3) covalently linked to (p1) of the medical device and a2) encapsulating at least one (c3) covalently linked to the medical device with a hydrogel (h1). (h1) reduces the mobility of (c3) and thus enhances the magnetic-resonance imageability of the medical device; and

(3) Manufacture (M3) of a magnetic-resonance-imageable medical device (D3) involving providing (D3) and cross-linking a chain (preferably polymer chain) with a first hydrogel to form a (h1) overcoat on at least a portion of (D3) (where the chain has a paramagnetic-metal-ion/chelate complex (c4) linked to it).

USE - The method is useful for coating a medical device (claimed) e.g. stents, coils, valves, catheter or biopsy needle in diagnostic MR; in performing an operation on a target or a device which itself is implanted in the body (human or animal) for therapeutic purpose e.g. stent or graft.

ADVANTAGE - The medical device is coated so that the devices are readily visualized, particularly, in T1 weighted magnetic resonance images. Because of the high signal caused by the coating, the entirety of the coated devices can be readily visualized during e.g. an endovascular procedure. The coating is capable of emitting magnetic resonance signals. The coating provides ability to emit magnetic resonance signals and permits visualization of the entirety of a device or instrument so coated as used in interventional MR procedures. The coating provides visibility in interoperative MR of surgical instruments after being coated with the signal-enhancing coatings; provides improved visualization of implanted devices so coated, e.g. stents, coils, and valves.

Dwg.0/22

FS CPI EPI GMPI

FA AB; DCN

MC CPI: A10-E01; A11-B05; A12-V00V; B04-C01; B04-C02; B04-C03; B04-N02; B05-A03; B10-B01B; B11-C04; B11-C09; D09-C01

EPI: S01-E02A2; S03-E07A; S03-E09X; S05-D02B3

TECH UPTX: 20040123

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Device: At least a portion of (D1) and (D2) is made from (p1). (f2) is a functional group on (p1) is formed by ia) treating the substrate to yield (f2) on it. (D4) has a surface and the surface is at least partially made from or coated with (p1) including the polymer chain. Preferred Method: (M1) further involves i) treating (p1) to yield (f1) on it; ii) chill-setting the coating after the coating is provided on the medical device; iii) uses a cross-linker (preferably glutaraldehyde) to cross-link (p1) containing an amine group and the first hydrogel containing an amine group to form a hydrogel overcoat; iv) uses a cross-linker (preferably glutaraldehyde) to cross-link and first and second hydrogel to form a hydrogel overcoat. The cross-linker connects the amine group to an aldehyde moiety of the glutaraldehyde. (c1) and (c2) is covalently linked to the medical device. The polymer chain and (h1) are cross-linked using a cross-linker (preferably glutaraldehyde). (p2) and the polymer chain is not covalently linked to the (D1), (D2) and (D4). Step i) involves:
(1) plasma treating (p1) with a plasma gas which is hydrazine, ammonia and/or a chemical moiety of a nitrogen-hydrogen combination to obtain a plasma-treating functional group which is an amine group;
(2) plasma treating (p1) with a plasma gas which is carbon dioxide or oxygen to obtain functional group which is a **carboxyl** group; and
(3) melt coating with a hydrophilic polymer or precoating with a hydrophilic polymer containing primary amine groups.
The chelate is covalently linked to the functional group by an amide linkage. In (M1), (D1) and (M2), the linker or spacer molecule (preferably lactam or diamine) links the chelate of (c1), (c2) and (c3) to (f1), (f2) and (f3) respectively. (c1) is mixed with the first hydrogel to produce

the coating. In (D2), the (p2), the first hydrogel and second hydrogel are cross-linked to produce a hydrogel overcoat using a cross-linker (preferably glutaraldehyde). ia) involves the step 1), and 3). a1) further involves plasma treating at least one portion of (p1) of the medical device before covalently linking the complex to it to provide functional groups (f3) selected from amino and **carboxyl** groups of it; covalently linking (c3) to (f3). (c4) is linked to the chain by a functional group (f4) (preferably amine or **carboxy** group) or is covalently linked to (D4). (c4) is formed by coordinating a paramagnetic-metal-ion with the chelate. (f4) is formed by plasma treating (p1).

TECHNOLOGY FOCUS - POLYMERS - Preferred Components: Compound (p1) is polyethylene, polypropylene, polyester, polyamide, polytetrafluoroethylene, polyurethane, polyamino undecanoic acid, polydimethylsiloxane, polyglycol, polyoxyethylene, polysorbate 60, stearate and palmitate ester of sorbitol copolymerized with ethylene glycol, polyvinyl **acetate** phthalate, polyvinyl alcohol or polystyrene sulfonate. (f1) and (f2) is a functional group of a polymer (p2) or a second hydrogel. The polymer chain is a second hydrogel. The first hydrogel, the second hydrogel, and (h1) are selected from collagen, gelatin, hyaluronate, fibrin, alginate, agarose, **chitosan**, poly(acrylic acid), poly(acrylamide), poly(2-hydroxyethyl methacrylate), poly(N-isopropylacrylamide), poly(ethylene glycol)/poly(ethylene oxide), poly(ethylene oxide)-block-poly(lactic acid), poly(vinyl alcohol), polyphosphazene and/or **polypeptide** (preferably gelatin). (p2) and the polymer chain is poly(N(3-aminopropyl)methacrylamide) having repeating unit of formula -(CH2C(CH3)(C(O)-NH-CH2CH2CH2NH2)-. The polymer chain is poly(N(3-aminopropyl)methacrylamide). (c4) is attached to the polymer chain by an amine group of poly(N(3-aminopropyl)methacrylamide). TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Components: The paramagnetic-metal ion of (M1), (D2), (M2) and (M3) is of formula M(n+). M = lanthanide (preferably gadolinium) or transition metal selected from iron, manganese, chromium, cobalt or nickel (preferably lanthanide); and n = at least 2.

ABEX UPTX: 20040123

SPECIFIC COMPOUNDS - 10 Compounds are specifically claimed as the chelate e.g. **diethylenetriaminepentaacetic** acid.

EXAMPLE - A polyethylene sheet (4.5 in diameter and 1 mil thick) was placed in a capacitively coupled, 50 kHz, stainless steel plasma reactor and hydrazine plasma treatment of the polyethylene film was performed. The substrate film was placed on the lower electrode. First, the base pressure was established in the reactor. Then the hydrazine pressure was slowly raised by opening the valve to the liquid hydrazine reservoir. The following plasma conditions were used: base pressure = 60 mT; treatment hydrazine pressure = 350 mT; RF Power = 25 W; treatment time = 5 minutes; source temperature (hydrazine reservoir) = 60 degrees C; temperature of substrate = 40 degrees C. Surface atomic composition of untreated and plasma-treated surfaces were evaluated using XPS (X-ray photoelectron spectroscopy).
In a 25 ml dry flask, DTPA (**diethylenetriaminepentaacetic** acid) (21.5 mg) was added to anhydrous pyridine (8 ml). In a small vessel, 1,1'-carbonyldiimidazole (CDI) (8.9 mg), as a coupling catalyst, was dissolved in anhydrous pyridine (2 ml). The CDI solution was slowly added into the reaction flask while stirring and the mixture was stirred at room temperature (RT) for 2 hours. A hydrazine-plasma treated polyethylene film was then immersed in the resulting solution. The resulting mixture was purged with dry argon for 10 minutes. After reaction for 20 hours, the polyethylene film was carefully washed in sequence with pyridine,

chloroform, methanol and water. The surface was checked with XPS, and the results showed the presence of **carboxyl** groups demonstrated the presence of DTPA. GdCl3.6H20 (0.70 g) was dissolved in water (100 ml). The DTPA-treated polyethylene film was soaked in the solution for 12 hours. The film was then removed from the solution and washed with water. The surface was checked with XPS and showed two peaks at a binding energy (BE) of 153.4 eV and BE of 148.0 eV, corresponding to chelated Gd3+ and free Gd3+ respectively. The film was repeatedly washed with water until the free Gd3+ peak at 148.0 eV disappeared from the XPS spectrum. The relative surface atomic composition of untreated and treated polyethylene (PE) surfaces showed %Gd, **%N**, **%O** and %C for the untreated PE of 0, 0, 2.6 and 97.4; for hydrazine plasma treated PE of 0, 15.3, 14.5 and 70.2; for DTPA coated PE of 0, 5, 37.8 and 57.2 and for Gd coated PE of 1.1, 3.7, 35 and 60.3 respectively.
MR signal enhancement was assessed by imaging coated sheets of polyethylene and polypropylene as prepared above with gradient-recalled echo (GRE) and spin-echo (SE) techniques on a clinical 1.5 T scanner. The sheets were held stationary in a beaker filled with a tissue-mimic, fat-free food-grade yogurt, and the contrast-enhancement of the coating was calculated by normalizing the signal near the sheet by the yogurt signal. The T1-weighed GRE and SE MR images showed signal enhancement near the coated polymer sheet. The T1, estimates near the coated surface and in the yogurt were 0.4 s and 1.1 s, respectively. No enhancement was observed near control sheets.

L150 ANSWER 15 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2004-011538** [01] WPIX
DNN N2004-008510 DNC C2004-003245
TI Method for providing sustained release of drug to moist tissue involves applying to the moist tissue drug delivery device containing **N**, **O**-carboxymethyl **chitosan** to provide adherence to the moist tissue.
DC A11 A14 A96 B05 B07 D22 P32
IN ELSON, C; KYDONIEUS, A
PA (CHIT-N) CHITOGENICS INC
CYC 100
PI WO 2003082163 A1 20031009 (200401)* EN 20 A61F013-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
AU 2002252565 A1 20031013 (200435) A61F013-00
EP 1494633 A1 20050112 (200504) EN A61F013-00
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
ADT WO 2003082163 A1 WO 2002-US10149 20020328; AU 2002252565 A1 AU 2002-252565 20020328, WO 2002-US10149 20020328; EP 1494633 A1 EP 2002-721645 20020328, WO 2002-US10149 20020328
FDT AU 2002252565 A1 Based on WO 2003082163; EP 1494633 A1 Based on WO 2003082163
PRAI WO 2002-US10149 20020328
IC ICM A61F013-00
ICS A61F002-00; A61F006-06
AB WO2003082163 A UPAB: 20040102
NOVELTY - Providing sustained release of a drug to moist tissue involves applying to the moist tissue a drug delivery device including a level of **N,O**-carboxymethyl **chitosan** as a component to provide an adherence to the moist tissue. The drug delivery device further

contains a drug to be delivered to provide sustained release of the drug and permeation into the moist tissue or into the surrounding cavity.

ACTIVITY - **Antiinflammatory**.

Six female rats were anesthetized using sodium pentobarbital (60 mg/kg) and subsequently sacrificed by cervical dislocation. Twelve femurs were harvested and stripped of connective tissue by sharp dissection. Excess connective tissue was removed from the rat femur by immersing the rat femurs in boiling water for thirty minutes. The femurs were then rinsed and air-dried. Each femur was immersed in 1 ml of 125I **NOCC** solution. The other half of the femur was used to manipulate the femur. Subsequently, the femur was either placed directly into a scintillation vial and then placed in a gamma -counter rack, or the femur was subjected to a uniform wash before placed into a scintillation vial and the gamma -counter rack. Four groups of three 125I **NOCC** treated femurs were subjected to either one wash, two washes, three washes, or no washes. A wash consisted of the uniform agitation of the femur in approximately 150 ml of PBS for five seconds. Two washes consisted of a wash, removing the femur from PBS for one second, and then repeating a wash. Hence, three washes consisted of a wash, removal of the femur, a wash, removal of the femur, and one last wash. The PBS solution was replaced for each group of femurs. The activity of 125I **NOCC** was evaluated by a Beckman-gamma -counter. The amount of 125I **NOCC** adhered to a rat femur was calculated, which used the activity of 1 ml of 125I **NOCC** (7.2 multiply 107 CPM) and the activity of the 125I **NOCC** on the femur, (detected by the gamma -counter). The result indicated that 125I **NOCC** adheres to rat femur. After third wash, it was found that 9.5 multiply 10-3 micro l/mm2 (or about 0.1 micro g **NOCC**/mm2) of 125I **NOCC** remained adhered to the rat femur.

MECHANISM OF ACTION - None given.

USE - For sustained release of a drug; for adhering moist tissue e.g. defective moist tissue including lung tissues, heart tissues and intestinal tissues, together; to deliver a systemic therapeutic effect; and for preventing surgical adhesions in moist tissue at the site of surgical incision in the treatment of mouth sores and periodontal disease (claimed).

ADVANTAGE - The method provides proper adherent system for use with moist tissue that can be tailored in terms of delivery time and compatibility through the use of additional structural material.

Dwg.0/10

FS CPI GMPI

FA AB; DCN

MC CPI: A10-E08C; A10-E23; A12-V01; A12-V02; B06-D01; B07-D04C; B08-C01; B10-A17; B11-C03; B11-C04; B11-C04A; B12-M10A; D09-C04B

TECH UPTX: 20040102

TECHNOLOGY FOCUS - BIOLOGY - Preferred Tissue: The moist tissue comprises mucosal tissue (preferably oral cavity tissue, buccal tissue, vaginal tissue or ocular tissue) including gastrointestinal tract, serous cavity, pleural, pericardial, peritoneal cavities or bone tissues.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Device: The device comprises a structural support material selected from rubber, plastic, resin, natural and/or synthetic polymers. The device further comprises a tissue sealant or a surgical adhesion barrier (preferably fibrin glue or a cyanoacrylate).

Preferred Drug: The drug is melatonin, chlorpheniramine, chlorhexidine and/or tetracycline. The drug can also be selected from beta-blockers, glaucoma treating drugs, progestins, estrogens, antifungal agent, antibacterial agents, anti-viral gents, proteins or **peptides** (preferably levonorgestrel).

L150 ANSWER 16 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2002-241173 [29] WPIX
DNC C2002-072443
TI New immunogen composition comprising an antigen, a biocompatible polymer and a liquid vehicle, useful for e.g. stimulating an immune response both systemically and mucosally, or for altering reproductive cycle of the host.
DC A25 A96 B04 B07 D16
IN BLONDER, J P; COESHOTT, C M; RODELL, T C; ROSENTHAL, G J; SCHAUER, W H
PA (BLON-I) BLONDER J P; (COES-I) COESHOTT C M; (RODE-I) RODELL T C; (ROSE-I) ROSENTHAL G J; (SCHA-I) SCHAUER W H; (RXKI-N) RXKINETIX INC
CYC 96
PI WO 2001098206 A1 20011227 (200229)* EN 67 C01B025-00
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
US 2002025326 A1 20020228 (200229) A61K039-21 <--
AU 2001076831 A 20020102 (200230) C01B025-00
EP 1315672 A1 20030604 (200337) EN C01B025-00
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
US 2004258702 A1 20041223 (200504) A61K039-00 <--
ADT WO 2001098206 A1 WO 2001-US20096 20010622; US 2002025326 A1 CIP of US 2000-602654 20000622, Provisional US 2001-278267P 20010323, US 2001-888235 20010622; AU 2001076831 A AU 2001-76831 20010622; EP 1315672 A1 EP 2001-954595 20010622, WO 2001-US20096 20010622; US 2004258702 A1 CIP of US 2000-602654 20000622, Provisional US 2001-278267P 20010323, CIP of US 2001-888235 20010622, US 2004-828842 20040421
FDT AU 2001076831 A Based on WO 2001098206; EP 1315672 A1 Based on WO 2001098206
PRAI US 2001-278267P 20010323; US 2000-602654 20000622;
US 2001-888235 20010622; US 2004-828842 20040421
IC ICM **A61K039-00**; **A61K039-21**; C01B025-00
ICS A01N043-04; **A61K009-06**; **A61K009-32**; **A61K009-38**; **A61K009-40**; **A61K009-52**; **A61K009-58**; **A61K009-64**; **A61K009-66**; **A61K031-715**; **A61K031-721**; **A61K031-722**; **A61K031-74**; **A61K039-02**; **A61K039-095**; **A61K039-10**; **A61K039-12**; **A61K039-245**; **A61K039-29**; **A61K039-38**; **A61K045-00**; **A61K047-00**; **A61K047-30**; **A61K051-12**; C01B015-16; C01B023-00; C01B025-18
AB WO 200198206 A UPAB: 20020508
NOVELTY - A new immunogen composition for stimulating an immune response when administered to a host, comprising an antigen, a biocompatible polymer and a liquid vehicle, where the polymer interacts with the liquid vehicle to impart reverse thermal viscosity behavior to the composition, so that the viscosity of the composition increases when the temperature of the composition increases at a temperature range.

DETAILED DESCRIPTION - A new immunogen composition for stimulating an immune response when administered to a host, comprising an antigen, a biocompatible polymer and a liquid vehicle, where the polymer interacts with the liquid vehicle to impart reverse thermal viscosity behavior to the composition, so that the viscosity of the composition increases when the temperature of the composition increases at a temperature range. The composition further comprises an additive enhancing the immune response selected from a penetration enhancer and/or an adjuvant.

INDEPENDENT CLAIMS are also included for the following:

(1) delivery vehicle compositions (DC1) comprising a drug in an amount to produce a desired biological response in a host, a reverse-thermal gelation biocompatible polymer, a liquid vehicle in which the polymer is at least partially soluble at some temperature, and an additive selected from a penetration enhancer and/or an adjuvant;

(2) methods of packaging and storing the immunogen compositions;

(3) a method for delivering a drug to a host by administering a delivery vehicle composition comprising a drug, a reverse thermal gelation biocompatible polymer, liquid vehicle in which the polymer is at least partially soluble at some temperature, and an additive; and

(4) a method for delivering an antigen to a host to stimulate an immune response.

ACTIVITY - Immunostimulant; Antibacterial.

The IgG antibody response to intranasal immunization at week 0 followed by booster immunization at weeks 1 and 3. The IgG anti-TT responses of mice immunized and boosted with TT in PBS, TT in F127/**chitosan** and TT in F127/LPC were compared. Results of these studies indicate that the animals treated i.n. with TT in PBS failed to generate a significant anti-TT immune response, with a geometric mean titer of 159.6. The group immunized with TT in F127/LPC had a measurable nti-TT IgG response with a geometric mean titer of 544. The group immunized with TT in F127/**chitosan** clearly demonstrated a significant systemic anti-TT IgG response with a geometric mean titer of more than 5000. Studies indicate that intranasal immunization with TT in F127/**chitosan** induces a significant systemic IgG anti-TT antibody response.

MECHANISM OF ACTION - None given in source material.

USE - The composition is useful for stimulating an immune response both systemically and mucosally, for delivering an antigen (or drugs) to a host to treat or prevent an infectious disease, for altering mammalian reproductive cycle, for reducing or eliminating degradation of the antigen and lowing for a relatively slow sustained administration of antigens to the host.

Dwg.0/12

FS CPI

FA AB; DCN

MC CPI: A12-W11L; B01-D01; B04-B04C1; B04-C02; B04-C03C; B04-F09C; B04-F10; B05-A01B; B10-A09B; B10-A22; B10-C02; B10-C04E; B12-M01; B14-A01; B14-G01; D05-H07; D05-H10

TECH UPTX: 20020508

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Composition: The temperature range is below 40 degrees C, particularly 1-37 degrees C. The composition is in the form of a flowable medium at least when the composition is at a first temperature (T1) and the composition is in a gel form at least when the composition is at a second temperature (T2), where T2 is higher than T1. T1 is 1-20 degrees C, and T2 is 25-37 degrees C. The polymer is substantially dissolved in the liquid vehicle when the immunogen composition is at T1, and at least a portion of the polymer comes out of solution in the liquid vehicle when the temperature of the composition is raised from T1 to T2.

Preferred Method: Packaging and storing a delivery vehicle composition comprises placing the composition in the form of a flowable medium, in a container and then raising the temperature of the composition to convert the composition to a gel form for storage. The gel form can be converted back to a flowable medium for administration to the host by lowering the temperature of the composition in the container. A drug can be administered to the host by administering a delivery vehicle composition, where the delivery vehicle composition comprises a drug, a reverse thermal gelation biocompatible polymer, liquid vehicle in which the polymer is at

least partially soluble at some temperature, and an additive consisting of a penetration enhancer and/or an adjuvant. Prior to the administration, the delivery vehicle composition is at a temperature lower than the physiologic temperature of the host, after the administration, and the host warms the delivery vehicle composition so that the temperature of the composition increases. The delivery vehicle composition is in the form of a flowable medium immediately prior to administration and the viscosity of the delivery vehicle composition increases after the administering when the temperature of the delivery vehicle composition increases. The delivery vehicle composition is in the form of a flowable medium immediately before administration and is converted to a gel form after administration. The drug delivery composition is administered to the host by placing the composition into an injection device for injection to the host. At least a portion of the drug delivery composition in the gel form adheres to a mucosal surface to retain the drug and the additive in the vicinity of the mucosal surface for delivery of the drug across the mucosal surface. The mucosal surface is selected from rectal, vaginal, ocular, oral, nasal, intestinal, pulmonary or aural mucosal surfaces. The drug comprises an antigen which stimulates an immune response, preferably a systemic immune response in the host. The immune response is a booster to a previous primary immunization of the host, where at least a portion of the delivery vehicle composition adheres to a mucosal surface within the host to retain the drug and the additive in the vicinity of the mucosal surface for delivery of the drug across the mucosal surface. The magnitude of the immune response is the same or greater than a comparison immune response generated by a comparison composition that is administered in the same way as the delivery vehicle composition. The comparison composition and the delivery vehicle composition are the same except for the absence of the polymer and/or the additive, where the polymer and/or additive are absent in the comparison composition. Delivering an antigen to a host to stimulate an immune response comprises introducing an immunogen composition into a host, and the immunogen comprises an antigen, a reverse thermal gelation biocompatible polymer, a liquid vehicle in which the polymer is at least partially soluble at some temperature, and an additive consisting of a penetration enhancer and/or an adjuvant for enhancing the immune response. The immunogen composition of the produces at least a humoral immune response in the host, which is preferably a human.

TECHNOLOGY FOCUS - POLYMERS - Preferred Polymer: The polymer is a polyoxyalkylene block copolymer comprising at least one block of a first polyoxyalkylene and at least one of second polyoxyalkylene. The first polyoxyalkylene is polyoxyethylene and the second polyoxyalkylene is polyoxypropylene. The polyoxyalkylene block copolymer has the formula HO(C2H4O)b(C3H6O)a(C2H4O)bH (I) or H(OCH2CH2)b(OC(CH3)HCH2)a(OCH2CH2)bOH (II).

For (I):

a = 15-80; and

b = 50-150.

For (II):

a = 20-80, and

b = 15-60.

The (C2H4O)b blocks comprise at least 70% of the weight of the polyoxyalkylene block copolymer. The block copolymer comprises at least one block of a polyoxyalkylene, which is a polyoxypropylene or a polyoxyethylene. The first polyoxyalkylene is a polyoxyethylene and the second polyoxyalkylene is a polyoxypropylene. The polyoxyethylene comprises at least 70% weight of the polymer. The polyoxypropylene has the formula (C3H6O)b (III) or (OC(CH3)HCH2)b (IV):

b = an integer.

Preferred Composition:The antigen may also comprise at least one rotavirus

and at least one antigen derived from rotavirus, a polysaccharide, a **peptide** mimetic of a polysaccharide. The adjuvant comprises dimethyl dioctadecyl ammonium bromide (DDA), a CpG motif, a cytokine, or a **chitosan** material, preferably an **N,O-carboxymethyl chitosan**. The liquid vehicle comprises 60-85% weight of the composition, the antigen comprises 0.0001-5% weight of the composition, the polymer comprises 5-33% weight of the composition, and the additive 0.1-1.0% (or 0.01 -10 % in DCl) by weight of the composition. The additive comprises a penetration enhancer selected from poly-L-arginines, polyoxyethylenesorbitan, polyoxyethylene-9-lauryl.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Composition: The antigen is derived from a bacterium, protozoa, fungus, hookworm, virus or their combinations. The antigen comprises a tetanus toxoid, a diphtheria toxoid, a non-pathogenic mutant of tetanus toxoid, a non-pathogenic mutant of diphtheria toxoid or their combinations. The antigen comprises at least one antigen from Bordatella pertussis, influenza virus, M. tuberculosis, a causative agent of childhood illness. The antigen may also comprise at least one rotavirus and at least one antigen derived from rotavirus, a polysaccharide, a **peptide** mimetic of a polysaccharide, or an antigen from Neisseria meningitiditis or Streptococcus pneumoniae, an Epstein-Barr virus, Hepatitis C virus (HCV), HIV or at least one antigen derived from Epstein-Barr virus, HCV or HIV. The antigen may further be selected from at least one molecule involved in a mammalian reproductive cycle, HCG, tumor-specific antigen, and an antigen from a blood-borne pathogen. The immunogen composition contains at least two antigens comprising: a first component consisting of tetanus toxoid, and/or a nonpathogenic mutant of tetanus toxoid; and a second component consisting of diphtheria toxoid, and/or a nonpathogenic mutant of diphtheria toxoid. The adjuvant of the composition comprises products of microorganisms, such as bacteria or yeast that can enhance uptake and presentation of antigens by antigen presenting cells. The additive also comprises a penetration enhancer selected from a bacterially-derived product, lysophosphatidylcholine, a CpG motif, a detoxified mutant of CT, a detoxified mutant of ET and an outer membrane protein of Neisseria meningitidis serogroup b

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Additive: The additive comprises an adjuvant for the antigen, where the adjuvant is selected from a **chitosan** material, dimethyl dioctadecyl ammonium bromide (DDA), a CPG motif, and a cytokine. The additive comprises a penetration enhancer selected from a **chitosan** material,fatty acids, salts of fusidic acid, sodium lauryl sulfate, citric acid, salicylates, caprylic glycerides, capric glycerides, sodium caprylate, sodium caprate, sodium laurate, sodium glycyrrhetinate, dipotassium glycyrrhizinate, glycyrrhenitic acid hydrogen succinate, disodium salt, **acylcarnitines** or phospholipids. The additive comprises **chitosan** material, preferably at least one **chitosan** and a **chitosan** derivative, where the **chitosan** material comprises **N,O- carboxymethyl chitosan.**

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Formulation: The composition is in the form of disperse droplets in a mist produced by a nebulizer. The immunogen composition is contained within a nebulizer which can actuate to produce a mist comprising dispersed droplets of the composition. The nebulizer is a nasal nebulizer. The immunogen composition may also be contained within an injection device for administration by injection to the host.

ABEX UPTX: 20020508

ADMINISTRATION - The composition is administered through intranasal, sublingual, oral, subcutaneous, intramuscular, or intraperitoneal. The delivery vehicle composition (DC1) is in the form of dispersed droplets in a mist during the administration, where the mist is introduced into the nasal cavity of the host during. Administration comprises nebulizing the composition to form the mist (claimed). No dosage given in source material.

EXAMPLE - Tetanus toxoid (TT) solution was obtained containing 961 Lf TT per ml of solution and 1884 Lf TT per mg of protein nitrogen. Pluronic F127 stock solution was prepared at 30 or 34% (w/w) by dissolving the polymer in ice-cold phosphate buffer solution where complete dissolution was achieved by storing overnight at 4 degrees C. **Chitosan** stock solution was prepared at 3% (w/w) in a 0.9% (w/v) saline solution containing 0.1% (v/v) **acetic** acid, and heated overnight at 37 degrees C to dissolve the **chitosan**. The stock solutions were then mixed together to prepare formulations containing various combinations of 200 Lf/ml TT, 0.5% (w/w) **chitosan**, and 16.25% (w/w) Pluronic F127. Formulations were used to administer a dose of 1.5 Lf of TT per mouse.

L150 ANSWER 17 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2001-616153 [71] WPIX
DNC C2001-184407
TI Micro- and nano-capsules with cationic charges on surface are used in laundry and other detergents, skin cleansers, shampoos and skin and hair cosmetics.
DC A18 A28 A87 A96 A97 B07 D21 D25 E19 F06
IN EISFELD, W; KRUPP, U; BRAUN, V; LOSSACK, A; SCHEIDGEN, A
PA (HENK) HENKEL KGAA
CYC 42
PI WO 2001062376 A1 20010830 (200171)* GE 66 B01J013-02
RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
W: AU BR CA CN CZ DZ HU ID IL IN JP KR MX PL RO RU SG SI SK UA US ZA
DE 10008305 A1 20010906 (200171) A61K007-00 <--
DE 10008306 A1 20010906 (200171) C11D017-00
DE 10008307 A1 20010906 (200171) B01J013-02
AU 2001046459 A 20010903 (200202) B01J013-02
EP 1257353 A1 20021120 (200301) GE B01J013-02
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT RO SE SI TR
EP 1257353 B1 20041103 (200475) GE B01J013-02
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
DE 50104385 G 20041209 (200481) B01J013-02
ES 2231467 T3 20050516 (200535) B01J013-02
ADT WO 2001062376 A1 WO 2001-EP1887 20010220; DE 10008305 A1 DE 2000-10008305 20000223; DE 10008306 A1 DE 2000-10008306 20000223; DE 10008307 A1 DE 2000-10008307 20000223; AU 2001046459 A AU 2001-46459 20010220; EP 1257353 A1 EP 2001-919315 20010220, WO 2001-EP1887 20010220; EP 1257353 B1 EP 2001-919315 20010220, WO 2001-EP1887 20010220; DE 50104385 G DE 2001-00104385 20010220, EP 2001-919315 20010220, WO 2001-EP1887 20010220; ES 2231467 T3 EP 2001-919315 20010220
FDT AU 2001046459 A Based on WO 2001062376; EP 1257353 A1 Based on WO 2001062376; EP 1257353 B1 Based on WO 2001062376; DE 50104385 G Based on EP 1257353, Based on WO 2001062376; ES 2231467 T3 Based on EP 1257353
PRAI DE 2000-10008307 20000223; DE 2000-10008305 20000223; DE 2000-10008306 20000223
IC ICM **A61K007-00**; B01J013-02; C11D017-00
ICS **A61K007-02**; **A61K007-035**; **A61K007-48**; **A61K009-00**; C11D001-645; D06M023-12
AB WO 200162376 A UPAB: 20011203

NOVELTY - Micro- and nano-capsules with cationic charges on the surface are claimed.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(a) laundry and other detergents containing usual contents and these capsules;

(b) skin cosmetics and cleansers containing usual contents and these capsules;

(c) shampoos and hair cosmetics containing usual contents and these capsules.

USE - The capsules are used in laundry and other detergents, skin cleansers and cosmetics and shampoos and hair cosmetics (all claimed). The detergents preferably are used for cleaning hard surfaces or washing dishes, textile treatments, especially universal and fine laundry detergents, pre-treatments, stain removers, after-treatments, e.g. softeners, upholstery and carpet cleaners (all claimed). The skin cleansers and cosmetics preferably are washing, shower and bath liquids and bars, body and face cremes and lotions, effervescent compositions, eye cosmetics and decorative cosmetics, e.g. lipstick, lip-gloss, make up, face powder, mascara, eyeliner, kohl, eye shadow, nail cosmetics etc.; and the hair cosmetics e.g. setting cremes, lotions and gels, hair sprays, pomades, rinses, cures, permanent waving agents, colors and bleaches (all claimed)

ADVANTAGE - Micro- and nano-capsules containing care components and perfumes are normally used in detergents and cosmetics that are rinsed off after treatment. However, the binding power between substrate surfaces (textiles, skin and hair) and micro- and nano-capsules is usually only slight. The present micro- and nano-capsules with cationic surface charges have very good substantivity towards substrates, especially textiles, skin or hair, so that at least a certain amount remains on the substrate, even after treatment with water.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A12-V04A; A12-V04C; A12-W05; A12-W12A; A12-W12B; B04-C02; B04-C03; B04-D01; B07-D09; B10-A22; B12-M11E; B14-R01; B14-R02; B14-R04; D08-B01; D08-B02; D08-B04; D08-B05; D08-B06; D08-B09A; D11-A02; D11-D01A; D11-D01B; E07-D09C; E10-A22; F03-J03

TECH UPTX: 20011203

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Capsules: The capsules consist of a core enclosed in wall material; or they are compact or the cores contain no active components. They have a particle size of 10 nm to 1000 microm, preferably 1-60 microm, especially 1.5-40 microm, more especially 2-30 microm. The weight ratio of core to wall is 99.9:0.1 to 2:1, preferably 95:5 to 70:30, especially 90:10 to 75:25. The core material is released by thermal energy, pressure, a change in pH or osmosis, preferably on or after application to a surface, especially a textile. The surface consists (partly) of or is coated with a cationic polymer or cationic compound.

Preferred Cationic Compounds: Preferred cationic compounds are quaternary ammonium compounds (I), ester-quats (II) and (IV) and quaternary imidazolinium compounds (III) of the given formulae, short-chain, water-soluble quaternary ammonium compounds e.g. trihydroxyethylmethylammonium methosulfate, alkyltrimethylammonium chlorides, dialkyldimethylammonium chloride and trialkylmethylammonium chlorides, protonized alkylamines, cationic quaternary sugar derivatives, alkylamidoamines and quaternary ester compounds:

R, R1 = acyclic 12-24C alkyl;

R2 = saturated 1-4C (hydroxy)alkyl;

R3 = R, R1, R2 or an aromatic group;

COR4, COR5 = aliphatic 12-22C **acyl** with 0-3 double bonds;

R6 = hydrogen (H) or hydroxyl (OH);
m, **n**, **o** = 1, 2 or 3;
X- = a halide, methosulfate, methophosphate or phosphate ion;
R9 = H or saturated 1-4 C alkyl;
R10 = aliphatic, (un)saturated 12-18 C alkyl or O(CO)R20;
R20 = aliphatic, (un)saturated 12-18 C alkyl;
R11 = aliphatic, (un)saturated 12-18 C alkyl;
Z = imino (NH) or oxygen (O);
X' = an anion;
q = 1-4;
R12 R13, R14 = 1-4 C alkyl, alkenyl or hydroxyalkyl;
R15, R16 = 8-28 C alkyl; and
r = 0-5.
Preferred Core Materials: Suitable core materials include perfumes, care components, vitamins and provitamins, e.g. vitamin A, vitamin C, vitamin E (alpha-tocopherol) and other tocopherols, vitamin F (polyene-fatty acids), panthenol (provitamin B5), beta-carotene (provitamin A) and its derivatives, plant extracts, antidandruff agents, ultraviolet filters, emollients (cosmetic oils), conditioners, glycerol, textile finishing agents, e.g. impregnants, finishes, conditioners, easy-care finishes, feel modifiers and soil release finishes, antistatic, antimicrobial agents and fungicides.
Preferred Compositions: The detergents contain textile cleaning components and capsules containing textile care components and preferably are in liquid to gel or solid form. The skin cleaners and cosmetics contain cleansing components and capsules with a core of refatting and/or cosmetic components. The shampoos and hair cosmetics preferably are combination products containing cleaning component(s) and capsules with cosmetic substances as capsule material.

TECHNOLOGY FOCUS - POLYMERS - Preferred Cationic Polymers: Preferred cationic polymers are quaternized protein hydrolyzates, polyquaternium-polymers, copolymers of polyvinylpyrrolidone (PVP) and dimethylaminomethacrylate, copolymers or vinylimidazole and vinylpyrrolidone, aminosilicone (co)polymers, polyquaternized polymers, cationic biopolymers based on **chitin** and cationic silicone oils.
Preferred Capsule Materials: Suitable materials are natural and synthetic polymers, especially polymeric polysaccharides, e.g. agarose or cellulose, starch, **chitin**, **chitosan**, proteins, e.g. gelatin, gum arabic, (m)ethylcellulose, **carboxymethylethylcellulose**, hydroxyethylcellulose, cellulose **acetates**, polyamides, polycyanoacrylates, polylactides, polyglycolides, polyaniline, polypyrrole, polyvinylpyrrolidone, polystyrene, polyvinyl alcohol, polystyrene/maleic anhydride copolymers, epoxide resins, polyethylene-imines, styrene/methyl methacrylate copolymers, poly(meth)acrylates, polycarbonates, polyesters, silicones, mixtures of gelatin and water glass or polyphosphate, cellulose **acetate** and phthalate, gelatin and maleic anhydride/methyl vinyl ether copolymers, cellulose **acetate**-butyrate and any mixture of these, which can have cationic groups.
Preferred Core Materials: Suitable core materials include biopolymers, silicone oils, polymers for fixing hair and cationic polymers.
ABEX UPTX: 20011203
EXAMPLE - Textile softening formulations contained 0.2, 0.5, 1.0, 2.0 or 5 weight% optionally cationically-modified microcapsules containing perfume (rose oil, peppermint oil and orange oil), which had various particle sizes, with medians at about 5, 20 and 40 microm. The ratio of core to wall was between 90:10 and 75:25 in all cases. The formulations also contained (A) 5.0, (B) 16.0, (C) 21.5 weight% cationic surfactant , (A, B, C) 0, (D) 3.0 weight% polyethylene dispersion and (A) 0.3, (B, C, D) 0.55 weight%

magnesium chloride hexahydrate, rest free perfume, dye, thickener, antifoam and water. Cotton textiles were treated with the softener solution for 5 minutes, using 10.3 g softener/kg dry washing and a goods:liquor ratio of 1:5. They were then spun, hung to dry for 1 day and kept in a cupboard for 2, 6 or 9 days or ironed after drying. In all cases, the perfume intensity was much stronger when cationically modified capsules were used.

L150 ANSWER 18 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2000-506528 [46] WPIX
DNC C2000-152074
TI New **N,O**-substituted **chitins** and **chitosans** prepared by alkoxylation, N-substitution with aldoses or ketones followed by reduction, useful as additives for cosmetics, e.g. shampoos and suntan lotions.
DC A11 A96 B07 D21
IN RATHJENS, A; WACHTER, R
PA (COGN-N) COGNIS DEUT GMBH
CYC 1
PI DE 19857547 C1 20000803 (200046)* 14 C08L005-08 <--
ADT DE 19857547 C1 DE 1998-1057547 19981214
PRAI DE 1998-19857547 19981214
IC ICM **C08L005-08**
ICS **A61K007-00**
AB DE 19857547 C UPAB: 20000921
NOVELTY - A new **N,O**-substituted biopolymer is prepared by:
(1) alkoxylation or **acylation** of **chitins** and/or **chitosans** using alkylene oxides and/or **carboxylic** acid anhydrides and/or acid chlorides;
(2) N-substitution of the resulting intermediates with aldoses and/or ketones; and
(3) reducing the resulting imino groups to amines.
DETAILED DESCRIPTION - An **N,O**-substituted biopolymer is claimed, which is prepared by:
(1) by alkoxylation or **acylation** of **chitins** and/or **chitosans** using alkylene oxides and/or **carboxylic** acid anhydrides and/or acid chlorides;
(2) N-substitution of the resulting intermediates with aldoses and/or ketones; and finally
(3) reducing the resulting imino groups to amines.
An INDEPENDENT CLAIM is also included for preparation of the biopolymers as described above.
ACTIVITY - Dermatological; antimicrobial.
MECHANISM OF ACTION - None given.
USE - The polymer is useful as a gel- or film-former, a moisture regulator and antimicrobial agent in cosmetics (claimed) e.g. in skin cleansers, moisturizers, hair sprays, shampoos, conditioners, shower gels, foam baths, suntan lotions and nail polishes.
ADVANTAGE - The polymer has good solubility in alcohol and water, especially at a pH of 6 - 8. It is also compatible with anionic formulating ingredients. The derivatization with alkoxy or **acyl** and amine groups results in improved gel- and film-forming properties, as well as imparting both moisture regulating and antimicrobial effects.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A03-A; A10-A; A10-E09; A12-V04; **B04-C02E3**; B14-A01; B14-N17; B14-R01; D08-B03; D08-B09A
TECH UPTX: 20000921

TECHNOLOGY FOCUS - POLYMERS - Preferred Polymer: The **chitosans** have an average molecular weight of 10000 - 5000000 and the degree of **acetylation** is 5 - 95 %. The reaction is preferably carried out using ethylene oxide and/or propylene oxide in stage (1), in which the molar ratio of **chitin/chitosan** (based on monomer units) to alkylene oxide is 1:0.1 - 1:10, and/or succinic acid anhydride, where the molar ratio of **chitin/chitosan** to anhydride is 1:0.1 - 1:1.5. The aldose or ketose is selected from glucose, mannose, galactose, maltose, lactose, cellobiose, melibiose, chitobiose **diacetate** and/or N-**acetylglucosamine**, and the molar ratio of **chitin-chitosan** to aldose/ketose is 10:1 - 1:2. The imine is reduced using complex hydrides. Finished compositions may contain e.g. surfactants, oils, silicones, biogenic compounds (e.g. tocopherol or retinol), deodorants, anti-dandruff agents (e.g. climbazol) and UV filters.

ABEX UPTX: 20000921

EXAMPLE - Propoxylated **chitosan** (7.6 g) with a 0.75 degree of substitution was dissolved with stirring in 0.2 M **acetic** acid (330 ml) at 20 degreesC. A solution of lactose (25.7 g) in water (225 ml) was slowly added and the mixture was stirred for a further 18 hours. Sodium cyanoborohydride (7.1 g) was added and after 24 hours' stirring, the resulting clear solution was neutralized with 50 weight % NaOH, precipitated with **acetone** (800 ml), washed with more **acetone** and dried to constant weight at 40 degreesC. An oil-in-water sun lotion was prepared, which contained the following ingredients (weight %): Cutina GMS (RTM) (4.0), Lanette O (RTM) (1.0), Plantaren 818 (RTM) (5.0), Finsolv TN (RTM) (2.0), dioctyl carbonate (6.0), Cetiol J 600 (RTM) (4.0), the substituted **chitosan** prepared as described above (1.0), panthenol/bisabolol (1.2), Copherol F 1300 (RTM) (2.0), Neo Heliopan 303 (RTM) (10.0), Neo Heliopan AV (RTM) (2.0), Uvinul T 150 (RTM) (3.0), zinc oxide (5.0), 86 weight % glycerin (5.0) and water/preservatives (to 100).

L150 ANSWER 19 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN **2000-096810** [08] WPIX
DNC C2000-028047
TI Preparation of microspheres used for delivery of bioactive agents, as a means of radio-imaging tissue and for delivery of agrochemicals.
DC A18 A28 A32 A96 A97 B07 C07
IN AMSDEN, B G; LIGGINS, R T
PA (ANGI-N) ANGIOTECH PHARM INC
CYC 86
PI WO 9957176 A1 19991111 (200008)* EN 52 C08J003-14
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 9935140 A 19991123 (200016)
US 6224794 B1 20010501 (200126) B05D007-00
ADT WO 9957176 A1 WO 1999-CA367 19990506; AU 9935140 A AU 1999-35140 19990506; US 6224794 B1 Provisional US 1998-84508P 19980506, US 1999-305857 19990505
FDT AU 9935140 A Based on WO 9957176
PRAI US 1998-84508P 19980506; US 1999-305857 19990505
IC ICM B05D007-00; C08J003-14
ICS B01J002-06; B01J013-02; B01J013-04; B32B015-02; B32B017-02
AB WO 9957176 A UPAB: 20000215
NOVELTY - Preparation of microspheres comprises passing a first fluid composition comprising a polymer and a solvent through an orifice and

directly into a second fluid composition comprising water and a microsphere-stabilizing agent, under one of two conditions.

DETAILED DESCRIPTION - Preparation of microspheres comprises passing a first fluid composition comprising a polymer and a solvent through an orifice and directly into a second fluid composition comprising water and a microsphere-stabilizing agent, under at least one of conditions (a) and (b):

(a) the first composition flows through a first conduit along a first path and exits the first conduit at the orifice, the second composition flows through a second conduit along a second path in an upstream to downstream direction, the first conduit is connected to the second and terminates at the orifice, the first and second paths being orientated at an angle between 0 and 180 deg. relative to each other;

(b) the first composition being at a first temperature and the second composition at a second temperature wherein the boiling point of the solvent of the first composition is less than or near the second temperature; and forming a composition comprising water and microspheres, the microspheres comprising the polymer.

USE - The microspheres are suitable for use in the delivery of bioactive agents for animal aquarian and human use, as a means of radio-imaging tissue and for the controlled release of agrochemicals.

ADVANTAGE - The method provides a means for preparation of polymeric microspheres with control over the average particle size and particle size distribution.

Dwg.0/10

FS CPI

FA AB; DCN

MC CPI: A11-A04; A12-S09; B04-C03; B12-K04B; B12-M10; B12-M11E; C04-C03; C12-K04B; C12-M10; C12-M11E

TECH UPTX: 20000215

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Process: Using method (a), the first fluid composition is preferably injected through a needle into the second composition, wherein the second composition is flowing past the tip of the needle in an upstream to downstream direction herein the needle and path of the second composition are preferably at an angle of 45-90degrees relative to each other. This method provides a population of emulsion droplets, having an average volume diameter influenced by the surface tension at the interface of the needle tip and the second composition, by the velocity of the second composition flowing past the needle tip, by the viscosity of the second composition and/or by the diameter of the needle. For method (b), the first composition is at a first temperature lower than the boiling point of the solvent and the second composition at a second temperature greater than the boiling point of the solvent, or only slightly less than the b.pt. of the solvent . The solvent may be an organic solvent and the second composition may be located within a column having a top and a bottom, the second composition may be stirred at a controlled stirring rate and the first composition may be introduced to the second composition through the bottom of the column at a controlled introduction rate. The resulting product is a composition comprising water and microspheres, the microspheres comprising the polymer. The process may further comprise separating some or all of the solvent from some or all of the microspheres. The resulting microspheres have a volume average diameter of less than 300 microns, preferably between 50 and 150 microns.

Preferred Polymers: The polymer may be a lipophilic polymer such as polyester (e.g. poly(lactide), poly(caprolactone), poly(glycolide), poly((-valerolactone) or copolymers thereof), poly(ethylene-co-vinyl **acetate**), poly(siloxane), poly(butyrolactone), poly(urethanes), hydrophilic polymers such as etheylene oxide and/or propylene oxide polymers, **carboxylated** poly(ethylene), poly(phosphazene),

polysaccharides such as **chitosan**, **N,O-carboxymethyl chitosan**, O-**carboxymethyl chitosan**, N-**carboxymethyl chitosan**, alginate, methylcellulose, hydroxymethylcellulose, acacia or tragacanth, gelatin and proteins or **polypeptides** such as serum albumin and poly(amino acids) and blends, copolymers and combinations of these polymers. A preferred polymer is poly(lactide-co-glycolide) at a concentration in the solvent of 5-10 w/v%.
Preferred Stabilizing Agent: a preferred microsphere-stabilizing agent is selected from poly(vinyl alcohol), gum arabic, CARBOPOL, ethylated starches, **carboxymethylcellulose**, hydroxymethylcellulose and mixtures thereof. A preferred stabilizing agent is poly(vinyl alcohol) present at a concentration of 1-2w/v% in water.
Preferred Solvent: preferred solvents include dichloromethane, carbon tetrachloride, THF, EtOAc and polyethylene glcyol.

TECHNOLOGY FOCUS - POLYMERS - Microspheres are prepared by passing a first fluid composition comprising a polymer and a solvent through an orifice and directly into a second fluid composition comprising water and a microsphere-stabilizing agent under specified conditions. The polymer may be a lipophilic polymer such as polyester (e.g. poly(lactide), poly(caprolactone), poly(glycolide), poly((-valerolactone) or copolymers thereof), poly(ethylene-co-vinyl **acetate**), poly(siloxane), poly(butyrolactone), poly(urethanes), hydrophilic polymers such as etheylene oxide and/or propylene oxide polymers, **carboxylated** poly(ethylene), poly(phosphazene), polysaccharides such as **chitosan**, **N,O-carboxymethyl chitosan**, O-**carboxymethyl chitosan**, N-**carboxymethyl chitosan**, alginate, methylcellulose, hydroxymethylcellulose, acacia or tragacanth, gelatin and proteins or **polypeptides** such as serum albumin and poly(amino acids) and blends, copolymers and combinations of these polymers. A preferred polymer is poly(lactide-co-glycolide). The stabilizing agent may also be polymeric in nature e.g. it may be selected from poly(vinyl alcohol), gum arabic, CARBOPOL, ethylated starches, **carboxymethylcellulose**, hydroxymethylcellulose and mixtures thereof. The solvent may be polyethylene glycol.

ABEX UPTX: 20000215

EXAMPLE - A 10% w/v PLGA (85:15 lactide:glycolide weight average M.W. 88,000) in dichloromethane solution was pumped at 2ml/min through a 31 gauge stainless steel, blunt-end needle. The needle was seated at a 90 degree angle within TEFLON-coated polyethylene tubing (internal diameter 0.25 inches), protruding through the tubing wall with the end of the needle approximately 1mm from the tube wall. A 1 w/v% PVA in reverse osmosis water solution was pumped at a constant rate of 16.5cm/sec through the polyethylene tubing and past the needle. The interfacial tension was 71 dyne/cm and the viscosity of the PVA solution was 0.015g/(cm s). the volume average diameter of the microspheres formed was 295 microns with a standard deviation of 13.8 microns.

L150 ANSWER 20 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 1997-535380 [49] WPIX
CR 1999-131833 [11]
DNN N1997-445781 DNC C1997-171087
TI Topical anti-hyperalgesic film-forming composition - useful for treating peripheral hyperalgesia and inhibiting post-injury pain..
DC A96 B02 B03 B07 D22 P34
IN BALOGH, I; FARRAR, J J; KUMAR, V; MAYCOCK, A L; FARRAR, J; MAYCOCK, L
PA (ADOL-N) ADOLOR CORP
CYC 71

PI WO 9733634 A1 19970918 (199749)* EN 42 A61L025-00
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN
US 5667773 A 19970916 (199749) 11 A61K031-00 <--
AU 9719847 A 19971001 (199805) A61L025-00
EP 888141 A1 19990107 (199906) EN A61L025-00
R: DE FR GB
AU 715912 B 20000210 (200018) A61L025-00
KR 99071497 A 19990927 (200048) A61L025-00
KR 297417 B 20020712 (200305) A61L024-00
EP 888141 B1 20040526 (200435) EN A61K047-30 <--
R: DE FR GB
DE 69729284 E 20040701 (200443) A61K047-30 <--
CA 2223514 C 20041026 (200471) EN A61L015-22
DE 69729284 T2 20050616 (200540) A61K047-30 <--

ADT WO 9733634 A1 WO 1997-US3315 19970226; US 5667773 A US 1996-614027 19960312; AU 9719847 A AU 1997-19847 19970226; EP 888141 A1 EP 1997-907990 19970226, WO 1997-US3315 19970226; AU 715912 B AU 1997-19847 19970226; KR 99071497 A WO 1997-US3315 19970226, KR 1998-703769 19980520; KR 297417 B WO 1997-US3315 19970226, KR 1998-703769 19980520; EP 888141 B1 EP 1997-907990 19970226, WO 1997-US3315 19970226; DE 69729284 E DE 1997-629284 19970226, EP 1997-907990 19970226, WO 1997-US3315 19970226; CA 2223514 C CA 1997-2223514 19970226, WO 1997-US3315 19970226; DE 69729284 T2 DE 1997-629284 19970226, EP 1997-907990 19970226, WO 1997-US3315 19970226

FDT AU 9719847 A Based on WO 9733634; EP 888141 A1 Based on WO 9733634; AU 715912 B Previous Publ. AU 9719847, Based on WO 9733634; KR 99071497 A Based on WO 9733634; KR 297417 B Previous Publ. KR 99071497, Based on WO 9733634; EP 888141 B1 Based on WO 9733634; DE 69729284 E Based on EP 888141, Based on WO 9733634; CA 2223514 C Based on WO 9733634; DE 69729284 T2 Based on EP 888141, Based on WO 9733634

PRAI US 1996-614027 19960312

REP FR 1589917; US 5288486

IC ICM **A61K031-00**; **A61K047-30**; A61L015-22; A61L024-00; A61L025-00
ICS **A61K007-40**; **A61K009-08**; **A61K047-38**; A61L015-44; A61L026-00; A61P029-00

AB WO 9733634 A UPAB: 20050624

A topical anti-hyperalgesic composition for coating an injured or **inflamed** site is new. The composition comprises: (a) 1-65% of an anti-hyperalgesic compound incorporated in a film-forming polymeric material; (b) 1-76% of film-forming polymeric material which is capable of forming a continuous film at pH 5.5-8.5 and which contains O, N or S atoms in combination with Ca2+, Mg2+, Zn2+ or Ba2+ in a ratio in the range 7.7 to 1; and (c) 23-34% of aqueous carrier.

The film forming material is: (a) anionic **carboxylated** polysaccharides of an anionic **carboxylated** polysaccharide of pectin (D-galacturonoglycan), algin (anhydro-D-mannuronic acid and anhydro-L-guluronic acid residues), gum karaya (D-galacturonic acid, D-galactose or L-rhamnose); (b) anionic sulphonated synthetic polymer of polystyrene or polyaryl sulphone; and (c) cationic aminopolysaccharides of keratosulphate, chondroitin sulphate, hyaluronic sulphate, heparin, **chitin** or dermatan sulphate.

USE - The composition is useful for treating peripheral hyperalgesia and is useful for inhibiting post-injury pain associated with local **inflammatory** conditions including **inflammation** following infection, blisters, boils, acute skin injuries, abrasions, burns, cuts, contusions, surgical incisions, irritations, poison ivy, allergic rashes,

dermatitis, stings, bites and **inflammation** of joints.
ADVANTAGE - The composition has no effect on the central nervous system.
Dwg.0/0

FS CPI GMPI
FA AB; DCN
MC CPI: A12-V01; A12-V03A; B04-C03; B06-D06; B07-D05; B12-M02D; B14-C01; B14-C03; B14-G02A; B14-N17; D09-C04B
ABEQ US 5667773 A UPAB: 19971211

Topical anti-hyperalgesic film-forming composition, for coating an injured/**inflamed** site on a mammalian patient to reduce hyperalgesia at the site, comprises: (a) 1-65 wt.% of an antihyperalgesic compound, which is devoid of central nervous system side effects; (b) 1-76 wt.% of a film forming polymeric material; and (c) 23-34 wt.% of an aqueous carrier. The film-forming material is capable of forming a continuous film at a pH of 5.5-8.5. The polymeric material has atoms (selected from **N**, **O** and S) containing polarisable electrons, in combination with a divalent cation (selected from Ca2+, Mg2+, Zn2+ and Ba2+). The ratio of the atoms containing the polarisable electrons to the divalent cations is 7.7 to 1. The film-forming material is selected from sodium ethylcellulose sulphate, sodium cellulose **acetate** sulphate, sodium **carboxyethyl** cellulose, chondroitin sulphate, dermatan sulphate, keratosulphate, hyaluronic acid, heparin, **chitin**, polyvinyl pyrrolidone, polyvinyl alcohol and polyethylene oxide.

USE - The composition is useful in treating post-injury pain associated with local **inflammatory** conditions, including **inflammation** following infection, blisters, boils, acute skin injuries, abrasions, burns, cuts, contusions, surgical incisions, irritations from various sources, poison ivy, allergic rashes, dermatitis, stings, bites and **inflammation** of joints.
Dwg.0/0

L150 ANSWER 21 OF 21 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 1995-006710 [01] WPIX
DNC C1995-002363
TI Complexes of iodine with **chitosan** or derivs. - prepared in absence of solvent, useful as topical disinfectants and cicatrising agents, or as deodorants in cosmetics..
DC A11 A96 B04 D21 D22
IN AFFAITATI, P; DE, ROSA A; ROSSI, A
PA (BIOT-N) DEV BIOTECHNOLOGICAL PROCESSESS SNC; (IMSI-N) IMS INT MEDICAL SERVICE SRL; (DBPB-N) DBP DEV BIOTECHNOLOGICAL PROCESSES; (DPEL-I) DI PELLICCIA M T; (IMSI-N) IMS INT MEDICAL SERVICES SRL; (IMSI-N) IMS-INT MEDICAL SERVICA SRL
CYC 20
PI

WO 9426788	A1	19941124 (199501)*	EN	36	C08B037-08	<--
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE						
W: CA JP US						
EP 649437	A1	19950426 (199521)	EN		C08B037-08	<--
R: AT BE CH DE DK ES FR GB GR IE LI LU MC NL PT SE						
US 5538955	A	19960723 (199635)		10	C08B037-08	<--
IT 1261474	B	19960523 (199703)			A61K000-00	<--
EP 649437	B1	19981111 (199849)	EN		C08B037-08	<--
R: AT BE CH DE DK ES FR GB GR IE LI LU MC NL PT SE						
DE 69414521	E	19981217 (199905)			C08B037-08	<--
ES 2123790	T3	19990116 (199909)			C08B037-08	<--
CA 2139509	C	20050614 (200541)	EN		C08B037-08	<--

ADT WO 9426788 A1 WO 1994-IT52 19940428; EP 649437 A1 EP 1994-916383 19940428, WO 1994-IT52 19940428; US 5538955 A WO 1994-IT52 19940428, US 1995-362568

19950103; IT 1261474 B IT 1993-RM291 19930507; EP 649437 B1 EP 1994-916383 19940428, WO 1994-IT52 19940428; DE 69414521 E DE 1994-614521 19940428, EP 1994-916383 19940428, WO 1994-IT52 19940428; ES 2123790 T3 EP 1994-916383 19940428; CA 2139509 C CA 1994-2139509 19940428, WO 1994-IT52 19940428

FDT EP 649437 A1 Based on WO 9426788; US 5538955 A Based on WO 9426788; EP 649437 B1 Based on WO 9426788; DE 69414521 E Based on EP 649437, Based on WO 9426788; ES 2123790 T3 Based on EP 649437; CA 2139509 C Based on WO 9426788

PRAI IT 1993-RM291 19930507

REP 03Jnl.Ref; JP 04178329; US 4275194; US 5051256

IC ICM **A61K000-00; C08B037-08**

ICS A01N059-12; **A61K031-70; A61K031-73**

AB WO 9426788 A UPAB: 19950110

Preparation of complexes (A) of iodine with **chitosan** (II) or its derivs.comprises a reaction in the absence of solvent; or by dissolving iodine in a non-ionic surfactant then the solution added to an aqueous solution of (II) or absorbed onto (II) in powdered form that is solubilised in water. Complexes of formula (I) are also new: X(I2)n X = monomeric unit of **chitin, chitosan** (opt. N-**carboxybutyl, acyl**, or **-carboxymethyl** substd.) **N,O -carboxymethylchitosan, N,O-chitosan** sulphate or their salts; n = 0.01-15.

USE - (I) is used as a disinfectant (e.g. for wounds, burns etc), cicatrising agent or deodorant, in pharmaceutical and cosmetic compsns. Iodine is the active antimicrobial while (II) stimulates tissue regeneration and wound healing.

ADVANTAGE - (A) may contain >60% iodine in a form resistant to sublimation, and if iodine content at most50 weight %, they are soluble in acidic aqueous solns. to give solns. that do not stain the skin and have good film-forming properties. (A) gradually release iodine over a long period so do not damage treated tissue. This preparation does not require large quantities of solvent and reaction times may be reduced.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A10-E04A; A10-E09; A12-V01; A12-V03C1; A12-V04; **B04-C02E3**; B05-C07; B14-A01; B14-N17B; B14-R03; D08-B09; D09-A01C

ABEQ US 5538955 A UPAB: 19960905

A process for the preparation of a charge transfer complex of iodine with **chitosan** or a derivative thereof wherein the **chitosan** or the derivative thereof and the iodine are made to react in the absence of solvent.

Dwg.0/0

=> d his

(FILE 'HOME' ENTERED AT 13:42:09 ON 17 NOV 2005)
SET COST OFF

FILE 'REGISTRY' ENTERED AT 13:42:15 ON 17 NOV 2005
E CHITIN/CN
L1 1 S E3
L2 315 S 1398-61-4/CRN
E CHITIN
L3 3200 S E3
L4 924 S L3 NOT E4-E13,E16
L5 608 S L4 NOT L1,L2
L6 90 S L5 NOT SQL/FA

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L7           89 S L6 NOT DNA
L8           11 S L2 AND N
L9            5 S L8 AND C2H4O3
L10           5 S L9 AND CARBOXYMETHYL ETHER
L11           1 S 52519-63-8
L12           8 S L1-L3 AND N AND O
L13           4 S L12 NOT SQL/FA

     FILE 'HCAPLUS' ENTERED AT 13:50:01 ON 17 NOV 2005
L14         375 S L11
L15        8628 S L1
L16          12 S L15 (L) N(L)O
                SEL AN 1 12
L17           2 S L16 AND E1-E4
                SEL RN

     FILE 'REGISTRY' ENTERED AT 13:54:51 ON 17 NOV 2005
L18          16 S E5-E20
L19           2 S L18 AND L1-L3
L20          14 S L18 NOT L19
L21           1 S L20 AND C10H17NO8

     FILE 'HCAPLUS' ENTERED AT 13:57:06 ON 17 NOV 2005
L22           6 S L21
                SEL AN 3-6
L23           4 S L22 AND E21-E28
L24           5 S L17,L23
L25           1 S US20050214255/PN OR (US2004-810742? OR WO2005-US10103)/AP,PRN
                E ELSON C/AU
L26         158 S E3-E8,E18,E19
                E KYDONIEUS A/AU
L27         149 S E3-E10
                E HENDERSON S/AU
L28          64 S E3,E10
                E HENDERSON SUE/AU
L29           6 S E5,E9,E10
                E CHITOGEN/PA,CS
L30          12 S E5-E12
L31           4 S L26-L29 AND CHITIN
L32           1 S L30 AND CHITIN
L33           4 S L31,L32
L34           2 S L33 NOT (48 OR 61)/SC,SX
L35           2 S L33 NOT L34
                SEL RN L34

     FILE 'REGISTRY' ENTERED AT 14:04:20 ON 17 NOV 2005
L36          18 S E1-E18
L37           4 S 1404-00-8 OR 56124-62-0 OR 89-57-6 OR 23214-92-8
L38           2 S L36 AND (CHITIN OR L1-L3)
L39           4 S L36 AND CHITOSAN

     FILE 'HCAPLUS' ENTERED AT 14:06:45 ON 17 NOV 2005
L40       23166 S L38,L39
L41          10 S L26-L30 AND L40
L42           6 S L41 NOT L33
L43           5 S L42 NOT 44/SC
L44       28096 S L2,L3
L45           0 S L26-L30 AND L44 NOT L41,L33

     FILE 'REGISTRY' ENTERED AT 14:09:24 ON 17 NOV 2005
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L46        1830 S CHITOSAN

     FILE 'HCAPLUS' ENTERED AT 14:09:32 ON 17 NOV 2005
L47       19914 S L46

     FILE 'REGISTRY' ENTERED AT 14:09:45 ON 17 NOV 2005
L48           1 S L39 AND 1/NC
L49         894 S 9012-76-4/CRN

     FILE 'HCAPLUS' ENTERED AT 14:09:55 ON 17 NOV 2005
L50        2267 S L49
L51          21 S L26-L30 AND L47,L50
L52          11 S L51 NOT L33,L41
L53          18 S L34,L43,L52
L54          18 S L53 AND L14-L17,L22-L35,L40-L45,L47,L50-L53
L55          17 S L54 AND N O
L56          18 S L54 AND ?CHITOSAN?
L57           3 S L54 AND ?CHITIN?
L58          18 S L54-L57
L59          17 S L58 AND ?CARBOXY?
L60          18 S L58,L59
                SEL RN 18

     FILE 'REGISTRY' ENTERED AT 14:14:16 ON 17 NOV 2005
L61          21 S E19-E39
L62           3 S 865532-59-8 OR 865533-35-3 OR 865533-54-6
L63           2 S L61 AND C5H9NO4
L64           1 S L63 AND CHITOSAN
L65           2 S L61 AND C6H8O7
L66           1 S L65 AND CHITOSAN
L67           1 S SUCCINIC ACID/CN
L68        6216 S 110-15-6/CRN
                E C4H4O3/MF
L69          43 S E3 AND OC4/ES
L70           6 S L69 AND 2 5 NOT (14C# OR 13C# OR 11C# OR (D OR T)/ELS)
L71           5 S L70 NOT DIOL
L72           1 S L71 NOT (LABELED OR 5 HYDROXY)
L73        1881 S 108-30-5/CRN
L74           3 S L2,L3 AND L68,L73
                E C4H2O3/MF
L75          16 S E3 AND OC4/ES
L76           3 S L75 AND 2 5 NOT (14C# OR 13C# OR 11C# OR (D OR T)/ELS OR LABE
L77           1 S 108-31-6
L78       24151 S 108-31-6/CRN
L79           0 S L2,L3 AND L78

     FILE 'HCAPLUS' ENTERED AT 14:24:27 ON 17 NOV 2005
L80           2 S L62,L64,L66
L81          23 S L17,L24,L25,L34,L43,L60,L80
L82          23 S L81 AND L14-L17,L22-L35,L40-L45,L47,L50-L60,L80-L81
L83          18 S L82 AND N O
L84          23 S L82 AND (?CHITOSAN? OR ?CHITIN? OR ?CARBOXY? OR ?ACYL?)
L85           1 S L84 AND L37
L86           6 S L84 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? OR
L87          10 S L84 AND NOCC
L88          23 S L84-L87
L89           4 S L14 AND L37
L90          34 S L14 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? OR
L91          35 S L89,L90
L92           0 S L22 AND L37
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L93           0 S L22 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? OR
L94          41 S L22,L91
L95          40 S L94 AND (PD<=20040325 OR PRD<=20040325 OR AD<=20040325)
L96          41 S L94,L95
                SEL AN 2 14 16 18 21 22 33 36 37
L97          32 S L96 NOT E1-E18

     FILE 'REGISTRY' ENTERED AT 14:40:04 ON 17 NOV 2005
L98           1 S DIVINYL SULFONE/CN

     FILE 'HCAPLUS' ENTERED AT 14:40:10 ON 17 NOV 2005
L99        1071 S L98  OR DIVINYLSULFONE OR DIVINYLSULPHONE OR DIVINYL()(SULFON
L100         21 S L99 AND L14,L15,L22,L40,L44,L47,L50
L101          0 S L100 AND L97
L102         33 S L25,L97
L103          1 S L102 AND L99,L100
L104         33 S L102,L103 AND L14-L17,L22-L35,L40-L45,L47,L50-L60,L80-L97,L99
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 14:42:36 ON 17 NOV 2005
L105         31 S E19-E49
L106         25 S L105 AND (CHITOSAN OR CHITIN OR L2 OR L49)
L107          9 S L106 AND N
L108          4 S L107 AND 1/NC
L109          9 S L107,L108
L110          8 S L109 NOT C16H36N
L111          6 S L105 NOT L106
L112          1 S L111 AND PMS/CI
L113          9 S L110,L112
L114          5 S L111 NOT L113

     FILE 'HCAPLUS' ENTERED AT 14:45:47 ON 17 NOV 2005
L115         33 S L113 AND L104

     FILE 'REGISTRY' ENTERED AT 14:46:12 ON 17 NOV 2005

     FILE 'HCAPLUS' ENTERED AT 14:46:31 ON 17 NOV 2005

     FILE 'WPIX' ENTERED AT 14:47:05 ON 17 NOV 2005
L116          0 S L25
                E CHITOSAN/CN
L117          1 S E12
                E CHITIN/CN
                E N,O-/CN
L118          2 S RA1YBP/DCN
L119       5327 S (A61K031-722 OR C08B037-08 OR C08L005-08)/IPC OR (B04-C02E3 O
                E CHITIN/DCN
                E E3+ALL
L120       1746 S E4,E6
L121       2377 S E8
L122       1745 S E10
L123      11530 S L118-L122 OR (?CHITOSAN? OR ?CHITIN?)/BIX
L124         71 S L123 AND N O/BI,ABEX
L125         60 S L124 AND ?CARBOX?/BIX
L126         15 S L125 AND ?ACYL?/BIX
L127         29 S L125 AND ?ACET?/BIX
L128         35 S L126,L127
L129         24 S NOCC/BIX
L130         57 S L128,L129
L131         32 S L130 AND A61K/IPC
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L132          25 S L130 NOT L131
                 SEL AN 2 3 6 7 11 12 13 16 19
L133           9 S L132 AND E1-E9
                 SEL AN L131 18 30 31
L134          29 S L131 NOT E10-E12
L135          38 S L133,L134
L136          20 S L135 AND (5 AMINOSALICYLIC ACID OR DOXORUBICIN OR ?PEPTIDE? O
L137           1 S L135 AND (AMINOSALICYL? OR AMINO SALICYL?)/BIX
L138          20 S L136,L137
                 E 5-AMINOSALICYLIC/CN
L139           1 S E4
                 E DOXORUBICIN/CN
L140           9 S E3-E17
                 E INTERFERON/CN
L141          76 S E3-E94
                 E VALRUBICIN/CN
L142           1 S E3
                 E MYTOMYCIN/CN
L143           1 S E4
L144          88 S L139-L143
                 SEL SDCN
                 EDIT /SDCN /DCN
L145           0 S E1-E90 AND L135
L146          11 S L135 AND P220/M0,M1,M2,M3,M4,M5,M6
L147          23 S L138,L146
L148          21 S L147 AND (?CHITOSAN? OR ?CHITIN?)/BIX
L149          19 S L148 AND N O/BI,ABEX
L150          21 S L148,L149

     FILE 'WPIX' ENTERED AT 15:29:30 ON 17 NOV 2005

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